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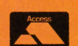
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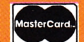
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BrunWord

Elite ROM Module £125

This is the ultimate addition to a 6128 computer. Word processor, spelling checker, 33,000 word dictionary, relational database, 9 pin print enhancer, 24 pin 'type setting' routines and 10 superb fonts, all programmed into one high capacity ROM (256K bytes). Massive memory, small size and includes our latest innovations, the As You Type spelling checker and our System 2 simplified printer control.

We fit the ROM into a small ROM board and give it a thick coat of protective resin, making a neat module which plugs directly onto the expansion socket of the CPC6128 or 6128 Plus. The price includes our 8 bit printer status port.

Great Power

Plug on the module, switch on, type ¦BW and the whole system is immediately ready for use. Type into the word processor, if the computer beeps, press <f3> and ask for help, transfer the correct spelling and resume typing. Use the database to print labels, search for an address, transfer it to the word processor and print it out, all without a single disc operation to slow you down.

Exciting Features

The Elite ROM has a host of exciting features including 5 high quality high speed screen dumps for 9 pin and 24 pin printers. These are special routines using the 8 bit printer status port and they print incredibly fast compared to desk top publishers. Every dot of ink on this page, including the drawing, the large 'BrunWord', our name & address, credit card symbols and Teddy, was printed in one operation using the BrunWord Elite ROM module and an Epson LQ1070 printer (wide carriage LQ570).

For simple layouts, System 2 can be set to Auto-formatting which enables micro spaced printing to be used without any layout instructions even when using proportional fonts.

Any Printer ?

All ROM modules work with any Epson compatible printer. All 24 pin printers can make full use of BrunWord Elite. Older designs of 9 pin printers (Amstrad DMP2160 etc) are limited to whole space justification but modern 9 pin printers (Star LC10 etc) can use micro justification.

Free ROMDOS

If you have a second 3.5 inch disc drive then you need KDS ROMDOS. We can supply this programmed into your ROM at no extra cost. (Not 6128 Plus). BrunWord ROM solves the frustration of disc drive confusion by always using whichever drive has the disc in it. Using a 3.5 inch disc drive with BrunWord ROM is simplicity itself and the ROM manual now covers our 'undocumented' command which enables a 3.5 inch disc to import and export text to a PC.

Remember.... No ROM box is needed.

BrunWord 6128 £30

Complete word processing package (disc) with word processor, spelling checker, 30,000 word dictionary and card filing programme. Type RUN "BRUNWORD" to load the word processor, spelling checker and the dictionary. BrunWord 6128 out performs all other word processors for the 6128. A fast screen response, extensive editor commands and the 4000 words per minute spelling checker, make it a joy to use. On the disc is a tutor file which takes even a complete beginner straight into word processing and demonstrates the powerful editing and formatting features of BrunWord. The 40 page manual includes step by step instructions to produce and print a simple letter.

6128 ROM Module £46

The same as BrunWord 6128, without the card filing programme, but supplied as a ROM module, with free ROMDOS (not Plus) and our fabulous As You Type spelling checker. (6128 Plus - add £12). Don't forget.... no ROM box to buy!

Info-Script ROM £79

The Info-Script ROM module is a complete data processing package, including all the features of the 6128 ROM. Even with 1000 names and addresses loaded into memory for instant reference, you can type a 10 page document in the word processor and your spelling will still be checked while you are typing. Stop anytime, use the database to search for a reference (typically taking 1 second for the search) and return to your typing. You could, if you wish, leave a marker in your text and transfer the data. Each programme remains just as you left it, with instant access. Can be upgraded to the full Elite ROM.

Comparisons

We have tested BrunWord 6128 and Protext with the same file of 3366 words.

The first test was to compare the scrolling speed of the screen, using line by line scrolling. This is a vital performance test as the CPC6128 tends to be naturally slow at this task. BrunWord scrolled 40% faster than Protext.

Protext was the fastest to justify but used a simple process that added spaces at the centre of each line, giving the middle of the text a bulging appearance. It did not display as it went along and so needed a separate operation to see the result. BrunWord displayed as it justified and produced a balanced appearance.

Our simulated typing test achieved 218 words per minute. Both BrunWord and Protext had no trouble at this speed.

The spelling test checked all 3366 words. BrunSpell took 52 seconds and needed no disc changes. Prospell took 6 min 24 sec and needed 8 disc changes.

The find and replace in Protext is confused by words starting with a capital letter so it always requires two separate operations. BrunWord is more sophisticated and automatically handles both variations in one operation.

Quotes

"It's totally brilliant...... carries on the extreme user friendliness of Brunning Products to a very high standard..... I have one of these little gems plugged into the back of my CPC right now..... The BrunWord ROM has performed in an exemplary fashion on all fronts."
Chris Knight (ACU Editor) - ACU August 1991.

"....(BrunWord) in itself is quite uncomplicated and easy to use. That's the beauty of the system - you can just sit down and start typing..... the fastest most efficient spell checker anywhere..... Info-Script is a formidable piece of software engineering. The fact that it's instantly available from BrunWord makes you realise just how powerful this whole package is..... The BrunWord ROM is a truly excellent product."
Rod Lawton (AA Editor) - AA September 1992

"Two weeks ago today I received my copy of BrunWord 6128 and would like to say how delighted I am with it. Although I am a qualified touch typist, I expected to take ages to get used to my first professional word processor and could not believe that only after a few short hours, I was using BrunWord as if I had had it for years, it is so well thought out and user friendly. I often have very difficult documents to type, lots of centring, underlining, indentations and numbered paragraphs. Four days after receiving BrunWord I typed eleven letters, an agenda and a set of complicated minutes in just two evenings."
Miss Veronica Petter (Bristol) 20th Aug 1992.



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**** You must state 'Ordinary' or 'Plus' ****
464 ROM cannot be supplied with Plus connector

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SPECIALS

Welcome to CPC ATTACK!

Hallowe'en may be next week, it may be in a month's time. It all depends in which week during October you read this, the November, copy of Attack!

Why do we sell the November issue in October, the December issue in November and the January issue in December (Okay...that's enough!)? Simple really. This month's issue, for example, will also be on the shelves during the first week of November - until the December issue comes out. If it was sold from the first week in November, it would be on the shelves during the first week of December. But would many of you buy a November edition in December? Probably, but many newsagents wouldn't give you the chance.

The European Computer Trade Show (Autumn) is being held at the very time we close the magazine - editorially - and, from news from there, the CPC isn't fairing too badly. You'll have to wait until next month for a report from our roving reporters.

REGULARS

SERVICES

Meet AMY STRAD
Check out the games pages for a spectacular in CPC gaming. There's loads of games reviewed and tested this month and promise of more to come - soon.

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SPECIAL THANKS
To all the backroom boys who helped out and to everyone else that knows us.

CONTACT

Is there something we should know? Need help on technical matters or games? Want to get something out in the open? Then you need a contact.
You can be certain of getting your enquiry answered within the magazine if you address your letter to the right person or department. We can't personally reply to enquiries, either by telephone or post, but, you can reach us by writing to, or faxing the listed departments at:
CPC ATTACK!, HHL Publishing, Floor 3, Greater London House, Hampstead Road, London NW1 7QQ
or FAX: 071-387 9518

P.S. If you have a problem with any advertising company in the magazine, you can always call our advertising department as long as it's between normal working hours. They are always available to help with your problems.

CPC Q&A
Always ready to answer your problems, the technical help section is crammed with helpful advice, tips and readers' problems. If you have any advice or handy tips to offer, send them in - prizes awarded for every tip published.

LETTERS
If you ever feel the need to express yourself, want to tell the world how wonderful you are, how crap a program is or if you wish to join in the topical forum, then get scribbling.

SUBMISSIONS
We are always on the look out for interesting and topical articles for publication. If you have a special set-up, or know of a special utility, you could write an article about it for CPC ATTACK! You could become a regular contributor, earning lots of money for your work.

PROGRAM LISTINGS
Listings and 10-Liners are superb learning ground for would-be programmers, and they also provide excellent utilities and games. In CPC ATTACK, all listings are treated as submissions and, as such, contributors are paid real cash. Please remember to include a disc or tape with the listing on it!

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STS SOFTWARE HITS THE CPC!

STS Software, a new software company, has released six new packages that look set to revolutionise the CPC market. STS was formed when seven computer buffs decided to turn their hobby into an occupation. Boasting among them, three machine coders and two graphic artists, STS looks to mean business. Among the programs released are:

CHARLEYS COMMS
£24.99 • ROM only • All CPC's
Charleys Comms is a complete AMSDOS communications package, on EPROM that

```
harley's Comms ROM

aud rate
ata word
ardware handshake
imeout
end break
ON control
ocal echo
```

has the following features:
- Data Transfer at a reliable 4800 bits/second
- YMODEM and YMODEM Batch Upload and Downloading capabilities (never before seen under AMSDOS!)
- Automatic protocol detection from 4 different protocol types
- Full RSX support enabling the user to access the serial port direct, and write their own communications programs, possibly even bulletin board systems!
- VT52 Terminal Emulation
- CPC 464+disk drive, CPC664 and CPC6128 compatible.
- Fully menu driven
- Scrolling communications software

PRO-EXT



£15.00 • Disk only • Expanded CPC's with disk drive
Pro-ext is a superb program, that bridges the gap between word processors and DTP packages. It enables PROTEXT users to import clip art and special fonts into their text, to create pages that give the impression that they were created on a DTP system, but without the hassle that normally accompanies DTP. Features include:
- Import Stop Press or PowerPage clip art
- Supplied with 8 fonts (more to follow!)
- Choice of printing size
- Pages can be printed in Draft or NLQ (Near Letter Quality)
- CPC 6128 or expanded CPC464+disk drive or 664 with 128k RAM
- User definable ruler lines
- Includes powerful font designer
- Supports EPSON 9 pin printer emulation
- Create Hi-Res headlines from within Protext

XEXOR
£20.00 • Disk Only • Disk-based CPC
This HAS to be the ultimate disk utility. It's definitely the best we've seen. Reviewed just over a year ago, XEXOR was highly recommended. STS have bought the rights, and now this amazing disk utility is available in Britain for the first time. Among its



COMPUTER FAIR

The All Formats Computer Fair is taking place once again this year and will be at the following locations from 10am - 4pm. Admission costs £4 for adults and £2 for children from 5-15. Dartsma customers get £1 off.

Oct	3	North East	Northumbria Centre , Washington, District 12
	4	North	University Sport Centre, Leeds
	10	Scotland West	City Hall, Candleriggs, Glasgow
	17	London	Novotel, Hammersmith
	18	West	Brunel Centre, Templemeads, Bristol
	24	North West	Haydock park Racecourse J23 M6
Nov	1	North	University Sports Centre, Leeds
	6	West Midlands	National Motorcycle Museum J6 M42
	7	London	Sandown Park, Esher, Surrey J9/10 M25
Dec	5	West Midlands	National Motorcycle Museum J6 M42

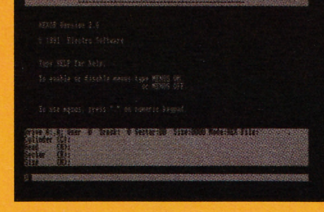


GAMES

***Streetfighter 2*, the popular CAPCOM coin-op and SNES console game will be released for the CPC around Christmas, courtesy of US Gold.**

Alternative are about to unleash a long list of CPC releases in the run-up to Christmas. Their major title will be *Suburban Commando*, based on the Hulk Hogan film. Also coming from them is Doctor Who. As the Doctor, with K-9 and the U.N.I.T 1 forces, you must defeat the evil Daleks and other mutants. *Popeye 3* was to be reviewed this month, but will not be ready for another two weeks. Unlike the previous Poyeyes, this is based on wrestling. No doubt spurred on by the success of games such as WWF.

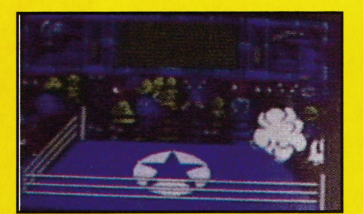
Codemasters' cute bouncing character, *Seymour*, is coming back in the long awaited sequel *Wild West Seymour*. Released alongside this is Slicks the racing game, not Flicks as reported in last issue. I blame BT myself.



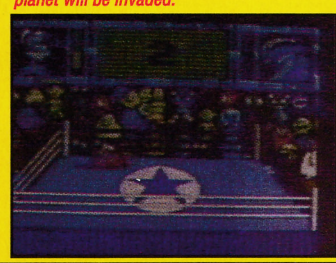
excellent specs are:
- Command Line driven, with optional menu control
- Supports ALL the extra RAM that your CPC has on it, including DK'troniks Silly-Disks.
- Unique "BRAIN FILE" copier, allowing even previously uncopyable disks to be backed up with ease.
- FULL Directory Editor
- Disk editor, works even on protected disks
- File Editor
- Allows areas of the disks to be written to files, and vice versa
- CUT and PASTE areas of disks
- Software side switching - examine the other side of a 3.5" disk, without even flipping the side switch on your disk drive!
- Compatible with all CPC's, including the PLUS range.

SOUNDTRAKKER
£20.00 • Disk only • Disk-based CPC
SoundTrakker is another import. Easily the best music creation system on the CPC, it allows the simple creation of tunes, and is more flexible than either of it's two rivals. Features include:
- Simple menu driven operation
- Sixteen definable instruments
- Sixteen chord capacity
- Hardware Envelopes for the best in sound quality
- User friendly sequence editor
- Real time recording option - records as you play!
- Copy/Load/Save sequences
- Tune compiler
- Once completed, tunes can be compiled to anywhere in main RAM
- Tunes can be interrupts driven, or called every frame flyback
- User friendly help screens

Look for full reviews on the WHOLE STS range very soon and remember, you read it in CPC Attack first!!!



Popeye 3 in the intergalactic wrestling contest. As Earth's sole representative, he'll have to win matches to prove to aliens that Earth people aren't easy. Otherwise, ithe planet will be invaded.



Titus are launching a new budget label. Called *Fox Hits*, its first releases include *Crazy Cars 2, Fire & Forget 1 and 2, Wild Streets* and finally *Offshore Warrior*. All-in-all a good set of games by the sound of it.

Titus are to release *Crazy Cars 3* at full-price in September. The game is 'looking fantastic' according to Titus. Another game is also due before Christmas. It will be a platform game, featuring the usual high graphical standard we've come to expect from the Frenchies.

SNIPPETS

News reached us that the AOK fanzine is officially closed. Please don't send any more mail to the fanzine as it is costly to return. Subsequently, proBASE from AOKsoft will no longer be available.

Robert Masson from Nottingham is hoping to release a new fanzine very shortly. Robert is naming his fanzine Extreme and promises us a copy for review as soon as it is finished.

Europress Software, publishers of Fun School and Mini Office 2, have a new MD. The previous MD left after a disagreement with other directors as to how future developments would be planned. The new announcement will signal a change at Europress, with more titles coming out at a faster rate. Hopefully they won't forget the CPC.

A new range of mid-performance dot matrix printers has been launched by Mannesmann Tally. There are 4 printers in this MT150 series, available in both 9 and 24-pin and wide and narrow carriage. The 9-pin printers are MT150/9 (narrow carriage) and MT151/9 (wide) while the 24-pin printers are the MT150/24 (narrow) and the MT151/25 (wide). A printers are based around the same design and feature LCD (liquid crystal display) control panels. The prices are, £469, £539, £599 and £689 respectively. They are a bit pricey, but their top speed is rated at 450cps (200cps being the normal) and have an average workload capability of 600 pages per day.
If you are in need of some heavy duty print processing power, contact Mannesmann Tally on 0734 788711.

Goldmark Systems have released Page Printer for Expanded CPC's with disk drive. Aimed at Microdesign users, it has the ability to print full Microdesign pages, with up to a 30% reduction in printing time. The quality, even in DRAFT mode is outstanding, and as well as the normal Epson printer support, there are Bubble Jet, and Seikosha printer drivers built in! Couple that lot with 24 pin printing ability, and you have what could be the best printer utility around. While its printing, you are even given a status bar, to show how printing is progressing, and has quite a data throughput. The READY light that flickers when my computer is receiving DATA stayed off while the page was printed!! It's so good, it makes you want to buy MicroDesign JUST for the printing quality!
• Rumour has it that HE Haxwell, from Goldmark Systems, is developing a MULTIFACE screen printer. If his last utility, STARDUMP, is anything to go by, this should be a stonking little utility. More news when we have it!



AVATAR exclusive – MS800 on ROM

ROM PRODUCTS and SERVICES

NEW ROMON/OFF SWITCH £7.95
Connects to the CPC's expansion port. Switches all external roms On or Off. 464 owners; unfortunately it also turns your disc drive rom off so your drive won't work when the switch is in the OFF position.

EPROM PROGRAMMER £30
This is the Rolls Royce of CPC eprom programmers. It can program 8k, 16k and 32k eproms of 12.5 and 21 volt voltages. It is supplied with software on both rom and disc together with full details on how to use 2 rom programs in one 32k eprom on the CPC – effectively doubling the CPC's rom capacity.
Also included are a ready to blow PD games rom file, utilities to turn your basic and machine code programs into suitable rom files and full instructions on how to lay out a program for blowing into an eprom.
Other features are: – program all or any part of an eprom; blank test; rom to rom copy; verify rom; fully menu driven. Programs a very wide range of eproms including CMOS types and does most in 105 seconds.

BLANK EPROMS
16k and 32k new....3.50 each or 5 for 15.00
32k used and erased....1.00 each

ROM SOFTWARE

PROTECT	30.00	MAXAM	30.00
PROSPELL	25.00	MAXAM 1.5	25.00
PROMERGE	25.00	BCPL	20.00
UTOPIA	25.00	MS800	9.95

32k RAMROM £13.95
32k of RAM that thinks it's TWO 16k ROMs. Each 16k can be loaded with, and behave like a rom program as long as the computer is on. Ideal for writing, editing and testing rom programs without the need to blow eproms. To avoid rom clashes, onboard links set each 16k block to your choice of rom Slot. Three switches control the loading, serial parallel rom slots and high/low rom when in parallel mode.
Alternative uses can be made on the 32k of ram but it will NOT operate as a DKtronics ram pack.
"There's a green eyed yellow ramrom to the nor..."OI!!!

6128 UPGRADE ROM £24.95
If you own a 464, have a disc drive and 64k ram pack, then all you need is this rom chip to convert your machine to a 6128. Supplied with full fitting instructions of several different fitting methods.

DISC DRIVE PRODUCTS

ABBA SWITCH £12.95
Swaps the internal A and the external B drives around so that the A becomes the B and vice versa. Easily fitted to the 664 or 6128 (not Plus). Works with any external drive. NOTE MS800 is the only high capacity system that recognises and uses its discs in drive A. "So?"

3rd DRIVE SWITCH £12.95
Allows 2 B drives to connect to the 664 or 6128. The switch selects which one will be active. As switching is OK with the computer turned on, the switch allows B to B copying. Suitable for any sizes of B drive.

In the Spotlight

WE NOW SUPPLY A CABLE TO CONNECT 2 DRIVES TO SIREN'S DISC INTERFACE.
CABLE ONLY....£9.95
or **FREE** IF ORDERED WITH 3 1/2" DISC DRIVE

DUAL CHANNEL RS232
The HS-S1 dual channel RS232 is virtually the same circuit as the now extinct Pace RS232 since they were designed by the same person. The two main differences between them are that the HS-S1 doesn't have a rom slot on board so rom software must be fitted to a separate romboard and that the HS-S1 has TWO serial ports where the Pace version has one.
We supply the HS-S1 with all the comms software you'll need on disc.
RS-S1 RS232 £39.95
MS800 owners can have the rom version for £5.50. Proof of ownership is needed.

AND THERE'S MORE...

31/2" DISCS	10 for £7.50 or 30 for £20.00
6" PRINTER CABLE	£8.00
64k DKtronics RAM PACK	£39.95

3½" DUAL-MODE DRIVE
NOW ONLY £79.95 inc. p&p
Includes MS800 disc & rom *FREE!* and 10 discs – *FREE!*

MODE 1 – operates as a standard B drive storing 180k on each side of the disc.

MODE 2 – stores up to 800k per disc when used with MS800, Ramdos, Romdos or Rodos.

Our ultra quiet, super small (only 1" high plus its little rubber feet) drive can store up to 800k per disc *without* the need to use its side switch when used with Ramdos, Romdos or Rodos. To allow the *extra* Dual mode feature and to use the best high capacity formatter available, we fit the side switch as standard. The drive is supplied with everything you need to use it on your CPC. *You need buy nothing else.*
Suitable for 464, 664, 6128 and Plus machines. Please state your computer model when ordering. The drive is NOT suitable as a 1st drive on a 464. This drive must never be given water to drink after midnight – no matter how heartfelt are its pleadings.
ROMDOS (rom only) £9.95

NEW DRIVE ADAPTERS NEW
These adapters allow your CPC's external drives to work on other computers. They just plug into your drive's cable – no modifications are needed. They can be left connected to the other computer and the drive moved at will.

CPC – PCW	£11.95
CPC – PC (1512/1640)	£12.95
CPC – ATARI ST	£10.95
CPC – AMIGA	TBA
CPC – other PCs	Please enquire

MISCELLANEOUS

PLUS TO EDGE WIDGET – £8.50
50 way adapter that allows the older CPC peripherals to connect to the newer PLUS machines. Only one adapter is needed – not one for each peripheral. An adapter isn't needed for 3¼" disc drives.
"Where there's a will there's a widget"

Hardware and Software too "Wow!"

The BONZO COLLECTION

BONZO SUPER MEDDLER £13.75
Transfers a very large percentage of games from tape to disc. Includes many varieties of Speedlocks. Produces stand-alone transfers. Includes a large database of verified transfers (getting larger all the time).

BONZO BLITZ £13.75
Transfers all known varieties of SPEEDLOCK tapes onto disc, producing stand-alone copies. Very large database of verified transfers.
Includes BONZO'S DOODAH +4 adventure games!

BONZO'S FLASH PACK £9.75
Well over 60 RSX additions to Basic that can be used in your own programs are stand-alone. i.e. Flash Pack does not need to be present to run the programs containing Flash commands!

BONZO'S BIG BATCH £9.95
Fast, flexible DATABASE; superb FOOTBALL POOLS PREDICTOR and SCREEN & SPRITE DESIGNER all rolled into one low cost package.

MAXIDOS £13.75
THE MOST COMPREHENSIVE and EFFECTIVE DISC UTILITY AVAILABLE FOR THE CPC
Fully compatible with Ramdos, Romdos, CPM and Amsdos. COPY files/discs; RESURRECT erased files; VERIFY discs; FAST FORMAT in Amsdos Ramdos/Romdos; CAT includes erased files and can include status length, etc; IDENTIFY format; change USER AREAS, system, read only files, etc etc etc. OPTIMISER speeds up your disc accesses by up to 50% ; FILE MAPPING, SECTOR EDITOR, outputs to the printer. . . . . too much!

SPECIAL OFFER
10% DISCOUNT ON ALL SOFTWARE
when buying 2 or more items
The items need not all be software

BONZO NEWSLETTER
S.a.e. to Martin Cossins. 100 Cottingley Approach, Cottingley, Leeds LS11 0HH. for full details.

MS800 disc or rom 9.95 – both 14.95
MS800 is the ONLY high capacity disc system that:– produces stand-alone discs; that is compatible with ALL software; that recognises and uses its high capacity discs in drive A (ABBA switch users, please note); that works on ALL CPCs – including the Plus machines; that doesn't occupy a single byte of computer memory. The single byte that it doesn't occupy is located at...sorry – just joking, but it's true. It doesn't use any memory at all.

Once formatted an MS800 disc carries the information needed to change the CPC to its own format and it does it without using any of its storage capacity. You can even send 800k discs full of proggys to your friends and they can use them! The MS800 program is need only for formatting and for copying to/from MS800 discs. Permission is also given to include MS800's COPY utility with MS800 discs when discs are passed to friends.

Since MS800 doesn't use any memory, it is compatible with all software and it is the ONLY one that is. Even awkward programs like Stop Press and Multiface II are catered for by MS800's unique 4 sided disc option.

Choice of formats including CPM; 64 or 128 directory entries; COPY utility (randos/Romdos don't have one) and a BONZO utility to help many transferred games to run from the B drive.

In other words.... it's b#★@#y brilliant! So there!



39 CROSSFELL ROAD, LEVERSTOCK GREEN,
HEMEL HEMPSTEAD, HERTS, HP3 8RG
Telephone: 0442 251705

MOST MAJOR CREDIT CARDS ACCEPTED

IMAGE PROCESSING

Veni venci Vidi - we came, we saw and we digitised a few pictures. Richard Wildey presents the definitive guide to Image Processing through three stages; Input: how to get the images into your CPC. Processing: What to do with them once they're there and Output: how to get the images back onto paper or video.

INPUT

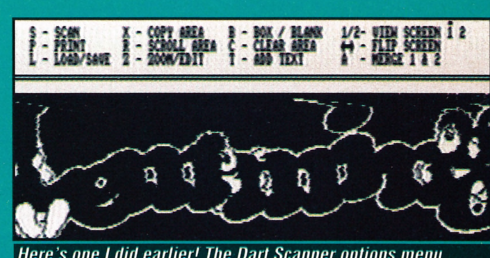
There are two ways to get images from the outside world into your monitor and neither of them involve opening it. These are scanning and digitising.

SCANNERS

Scanning and scanners work on the principle that when a beam of light is shone onto an object, a piece of paper in this case, the darker parts will reflect back less light than the lighter parts such as a white background. This information is sent back to the computer and transferred into pixels which are then plotted on your monitor.

Scanners usually come in two forms; hand held, which is dragged across the page you wish to scan, and larger flat-bed scanners. These flatbed scanners give much better results, but are vastly more expensive. The only commercially available scanner for the CPC, made by Dart Electronics, comes under none of these descriptions. It cleverly clips onto the printer head of a DMP printer and scans an inserted sheet by feeding the paper while moving the head from left to right at a constant speed, thus, giving the CPC information on the colour of the pixel (black or white) and where it should be plotted on the screen.

Another scanner was invented for the CPC, the circuit diagram and information to build this scanner was printed in a book called "Easy Add-on Projects for the Amstrad CPC 464, 664, 6128 and MSX computers. (BP171)". Published by Bernard Babani costing £2.95. This scanner was a cheap alternative and could be constructed by amateur electronic fiends. It, like all projects in the book, worked through the printer port. It did work, but turned out to be rather impractical for scanning a picture of any quality. Built in a paper cup the scanner had to be dragged, by hand, along a straight line at a constant speed, then, after each line had been scanned, the cup had to be moved down the picture an exact amount and

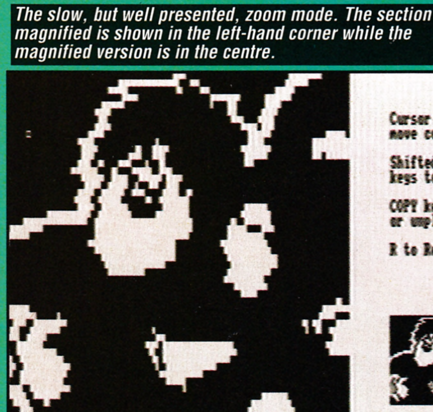


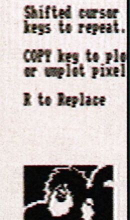
Here's one I did earlier! The Dart Scanner options menu allows extra, but simple, functions such as basic cutting, pasting and adding text.

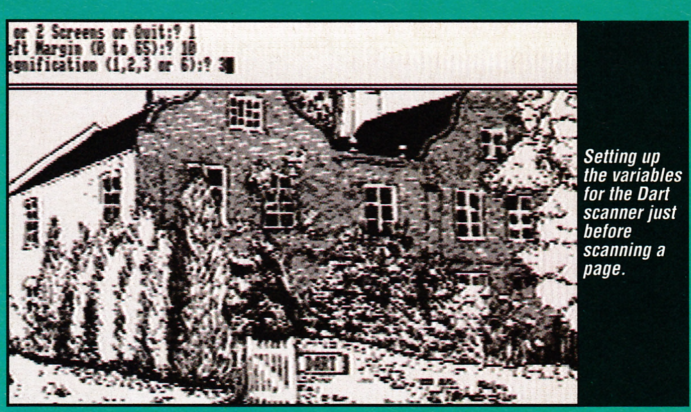
another line scanned. A time consuming process with none-too-spectacular results.

The Dart Scanner is a much more professional affair. Sold at the high price of £69.95, it certainly should be. So, what do you get for your money? As well as a thin, photocopied manual, the scanner comes with its own software which is, in principle, a very basic art package that has the facility to scan. Images can be scanned at a magnification of 1 (life size), 2 (double size), 3, and 6. An A4 page is scanned in two halves, but the software allows for this. It is possible to have two screens in memory at once, one at &4000 and the other at &c000. These can be flicked between, or merged, at any time, though zoom mode will delete one of the screens.

The slow, but well presented, zoom mode. The section magnified is shown in the left-hand corner while the magnified version is in the centre.







Setting up the variables for the Dart scanner just before scanning a page.

The software has been written for the DMP 2000 printer, but with slight alterations to the BASIC program, documented in the manual, other DMP models are supported. These are the 2160, 3000 and the 3160.

The hardware is housed in a white box the size of a household matchbox. This plugs into the expansion port and has a wire leading to the scanner, which has its own light source powered by the 5 volts from the expansion port. The interface has a dial which controls the brightness of the scan. This is changed according to the colour of the original image. The scanner works in mode 2 and does not take into account different colours; only black and white is supported. The brightness will need to be altered differently for colour images or the scanned image will be too faint.

Richard Wildey's Top Ten Scanning Tips

1 Never use original artwork, always photocopy first. This not only protects any images you may not want ink on, but turns greyscale into black and white.

2 Remove the printer ribbon as ink tends to get on the paper.

3 Tape or glue the paper down on cardboard to stop it rippling with the movement of the printer head.

4 Make sure the printer head in as close to the paper as possible by using the switch on the far left of the printer.

5 Go over faint drawings in a black felt-tip or marker

6 Scan pictures twice, storing one each in the space for pictures 1 & 2 then use the merge function.

7 Slightly better results are possible when images are scanned in a dark room.

8 People who don't have a DMP printer can use the Dart Scanner with a large lump of blue-tack.

9 If you're not using a DMP, you may need to stick your paper on to tractor feed printer paper.

10 If you want to make the Dart Scanner fully Art Studio compatible type the following:

```
LOAD "DARTSCAN"

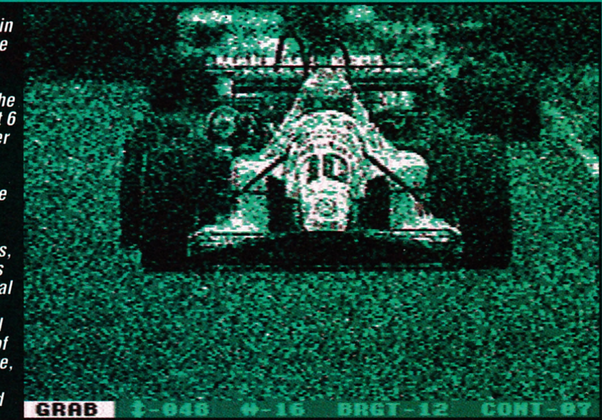
710 SAVE "!"+fl$+".scr",b,&4000,&4000
711 ' Art studio PALette saver by R.Wildey
712 POKE &8809,2:POKE &880A,&FF:POKE &880B,&19
713 FOR p=&880C TO &8817:POKE p,&4B:NEXT
714 FOR p=&8818 TO &88D8:POKE p,&54:NEXT
715 SAVE fl$+".pal",b,&8809,&EF,&8809

SAVE "DARTSCAN.BAS"
```

The program will now save screen files out with the extension .SCR and also an Art Studio PAL file.

DIGITISING

The other form of image that may be transferred to your CPC is a digitised picture from a television, video or camcorder. The only available piece of hardware that allows you to do this is Rombo's Vidi Digitiser. This has been around since 1986 and, like the scanner, costs £69.95.



Vidi's main menu. The main screen updates the images at 6 frames per second, while below, the contrast and brightness, as well as the vertical and horizontal position of the picture, can be controlled

Vidi decodes the signal from any composite video output, stores it into its internal 16k RAM then dumps it into your humble CPC, where it is then displayed on the screen. It can digitise anything that outputs composite video and not only videos can be digitised. For example, digitising Amiga screens, as in David Carter's PD slide shows, can be achieved via a video. Though for a better picture without the interference, owners of an Amiga Genlock can have 1st generation



Upon loading, Vidi gives you the choice of running its own software or a series of RSXs.

Richard Wildey's Top Ten Digitising Tips

1 Tune in your television as best you can

2 To digitise in MODE 0, a still picture is needed. Either grab the test card or put your camcorder somewhere stable.

3 Don't use Vidi with Disc Demon (on ROM) as it crashes when trying to save!

4 The set inks are best, but if you want to define your own, INK 0 should be the darkest, INK 2 the brightest and INKs1 and 3 in between with 3 being the lighter of the two.

5 When digitising from television, try to video it first and advance frame by frame to get the best picture. This also means you can experiment with contrast and brightness

6 Try digitising cartoons, they come out really well.

7 If you have an old version of the Vidi disk, change the program as below, enabling it to work on Stop Press:

```
195 a$="OVERLAYS.OVT"
200 |ERA,@a$:SAVE a$,b,&2600,&780
```

8 If the picture you receive on the monitor is divided with jagged lines or broken in half, then it's probably the connections to your CPC. Try cleaning the edge connectors with an ink rubber.

9 Users of Romdos can use the program below to make the Vidi Software compatible.

```
10 'Vidi LOADER FOR RAMDOS/DRIVE B
20 'Initialises ALL ROMs plugged in
30 ' (c) 1991 Rob Scott
40 '
50 MODE 1:MEMORY &7FFF:LOAD"Vidi.BIN"
60 POKE &8008,0:POKE &8009,0
70 POKE &800A,0
80 CALL &8000

SAVE "Vidi.BAS"
```

10 If you get no image but a pale blue screen you've forgotten to plug the Vidi in!

composite video output, giving a purer Amiga image on the CPC, but obviously in Amstrad resolution and colours.

Should you want pictures of your own face, either sign a contract with the BBC (perhaps you'll have more luck with B Sky B!) or else, it is possible to link up the Vidi to a camcorder's composite output. There's the basis for a whole new television series, "You've Been Digitised", well maybe not.

Vidi's software, available on disk, comprises two programs. The first is a menu-driven system which allows you to grab full screen images. The second is a series of RSX commands which can be used from BASIC in conjunction with your own programs.

The hardware is neatly packed inside a black box. Upon opening (not that I would do anything like that of course as it invalidates the guarantee) a whole bank of chips is found. These include a 6845 CRTC which is also found in the CPC, as it controls the screen - check out the Demo column if you don't know what it is.

The Vidi plugs into the expansion port and then into the "Video out" socket on a video with a phono lead or a Euroconnector lead (available from Rombo). Once wired up and the software booted, images instantly appear on the CPC screen at six frames per second. The software is very flexible and will allow the contrast and brightness to be modified, though both these can also be altered with the hardware as well as the screen MODE. Best results are obtained in MODE 1 & 2, as MODE 0 requires a still image. Colours are not displayed on screen until an image is grabbed, but a grey scale display will suffice. There are enough RSXs given to write customised Vidi programs, if the standard grabbing program is not suitable.



Once a screen has been grabbed you can enter sub menus, this is the filing menu.



Vidi's RSXs allow you to create your own package as well as other effects - several demo programs are supplied.


The picture after it's been digitised in MODE 0 with Vidi. The camera had to be kept still, as did the original artwork.


*A few hours later with the help of OCP Advanced Art Studio. Pens, in conjunction with the "Protect inks" function, were used to remove some of the unwanted colours and details . Once all the basic colours were changed to the correct inks, shading and details, all drawn in "Magnify * 4", were added.*


The image is printed out, but could have easily been output into a DTP layout for use in a newsletter or Amzine!



"Smile Please". This image was digitised in Mode 1, with the default Vidi colours - probably the best combination.



An example of how images can be distorted using Art Studio. The ears and teeth were drawn by hand and the eyebrows joined with the spraycan. Then the original face was squashed with the rescale function and, lastly, the neck enlarged with some cut and paste. An overall improvement, I think.

PROCESSING

Scanned or digitised images are usually not of a particularly high quality and will need tidying up. Luckily, the software for the Dart Scanner and the Rombo Vidi both save images as standard 17K screen files, which can be displayed using the following short program:

```
10 REM Set up Mode 0,1 or 2
and clear the screen
20 MODE 1
30 REM Load the file
"SCREEN.BIN" in at &c000,
the start of screen memory
40 LOAD
"SCREEN.BIN",&C000
50 REM Wait for a key
60 CALL &BB18
```

These files are compatible with most, if not all, CPC art packages including OCP Art Studio. Vidi also has the choice of saving chosen inks with an Art Studio ".PAL" file. The scanner does not need this as it uses MODE 2 and the pens chosen will most probably be: 26 (bright white) for the background ink 0 and pen 0 (Black) for the image in ink 1. I have included an amendment to the BASIC Dart Scanner software (see Top 10 scanning tips) to save ".PAL" files. This, obviously, can be improved with a yes/no option etc., but the main part of the program is there.

Load the image into an art package and trim round its edges, removing any unwanted areas. This could be done from the scanner software, but it is much quicker and easier to use a proper art package. Advanced Art Studio or, if you're on a low budget, the German PD program G-Paint, is the best choice. A round up of all currently available art packages was published in issue 2 if you want further help on which to choose.

Once the image is on screen why stop at at tidying the picture up, why not give a victim (sorry - model) fangs or else, for example, you could digitise characters, removing parts of their atanomy and paste them onto someone else.

Obviously, the CPC doesn't support sophisticated stretch features (as seen with Rob's photo in issue 4), but with some cunning use of the cut, paste and re-scale functions some good effects can be obtained. CRL's Image System has distort features which have the ability to elongate and fold corners of a chosen rectangle in four different directions. The Image system, though, does have the disadvantage of only working in MODE 0. Screens can also be distorted using the PD programs Spherescreen and Wavyscreen, both of which give the effect of rippling the screen or wrapping it around an invisible ball.

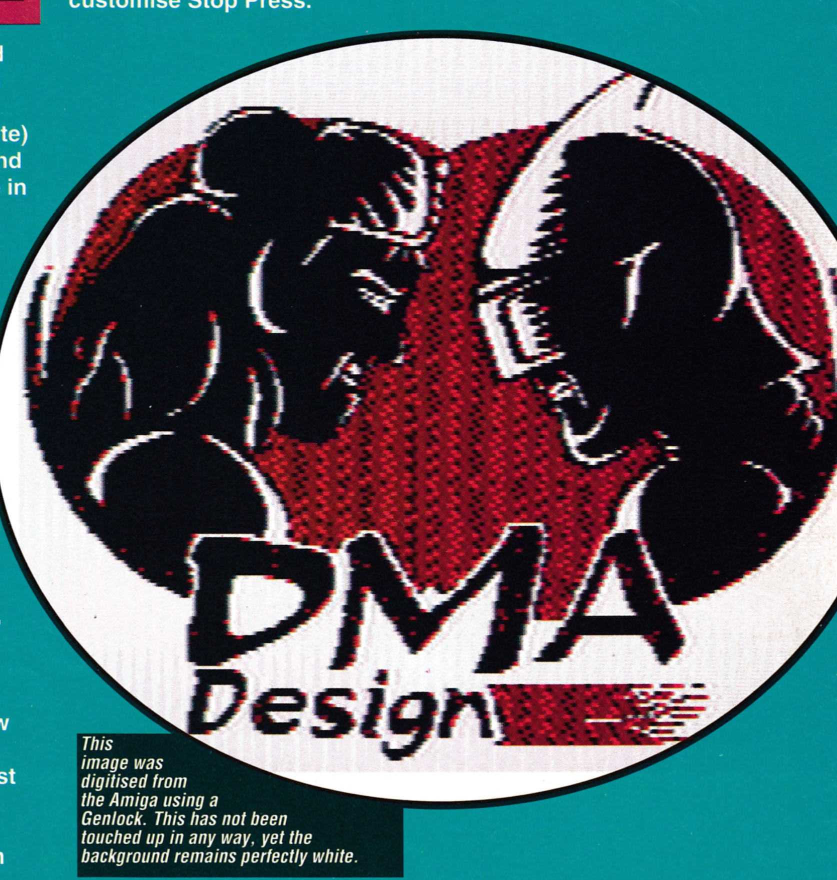
The main use of image processing is, probably, for use in desk top publishing. Included with Vidi is a file which can be used to customise Stop Press.

Once initialised, the scanner option in Stop Press displays the current input image, but, unfortunately, the update is slower than when using the full Vidi package. Otherwise, scanned images must be loaded into DTP packages as screen files, but can then be saved as clipart and is ready to be used in fanzines or leaflets.

Simple animations can be created from video using a screen swap, either from your own program or from the Vidi RSX. As screens are 17k, only short animations are readily available unless compressed screens are used. The Vidi software can support reduced screens, allowing longer animations to be created. Several sample programs are given to help create these effects.

OUTPUT

You'll probably want to show off your creation after it has been input and processed. As mentioned above, both the Dart and Vidi save out standard screen files, which can be compressed using a Public Domain compressor, such a the famous SQ23, and put into a slide show.



This image was digitised from the Amiga using a Genlock. This has not been touched up in any way, yet the background remains perfectly white.

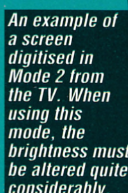
If the image is in MODE 2 format, sections of the screen can be saved as cutout files for use in DTP. Both Vidi and the Dart Scanner come with built in screen dump routines if hard copy is required. The screen dump supplied with the Vidi is widely regarded as the best screen dump routine around. There are others in the public domain such as Poster Print, which prints screens over a large number of sheets of paper, but it uses a lot of printer ink. For those looking for the more professional effect, the Glaswegian company Subtle Changes print Micro Design pages on laser printers for a fee of £1 per page. They only output MicroDesign pages, so clipart and screens will need to be converted to ".DR" files.

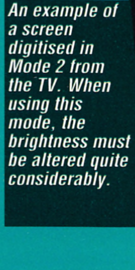
Images can be saved onto video and personalised videos can be made (useful if you can't think what to get granny for Christmas.) CampurSoft's new Videomaster, which is reviewed in this issue (see Q&A), will soon be sold with its own video titling system. This includes various display routines and the facility to have scrolling messages.

There are lots of useful applications for using images. For instance, signatures could be scanned and placed on letters (ain't that forging - Ed.). If you are a programmer, you could write a database featuring digitised pictures.



D'management grabbed straight from television with Vidi.





An example of a screen digitised in Mode 2 from the TV. When using this mode, the brightness must be altered quite considerably.



Amy scanned with the Dart scanner, the original was photocopied, from the magazine, to derive a grey scale image.

An rough, but recognisable, image scanned in magnification x6.



The Blues Brothers. This album sleeve wasn't photocopied and I paid in image quality for not doing so. As the writing was yellow, a dark contrast was needed, but to pick up the faces, a lighter contrast was required - this scan is a compromise.

CONTACTS

Vidi DIGITISER
£69.99
ROMBO Productions
6 Fairbairn Road,
Kirkton North,
Livingston EH54 6TS
Tel: 0506 414631

DART SCANNER
£69.99
Dart Electronics
Unit B5,
Oulton Works,
School Road,
LOWESTOFT,
Suffolk NR33 9NA
Tel: 0502 513707

VIDEOMASTER,
CampurSoft,
16 Slatefield Street,
Gallowgate,
Glasgow G31 1UA
Tel: 041-554 4735

Subtle Changes,
041 422 1601

Easy Add-on Projects for the CPC and MSX computers (BP171),
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The Grampians,
Shepherds Bush Road,
LONDON W6 7NF



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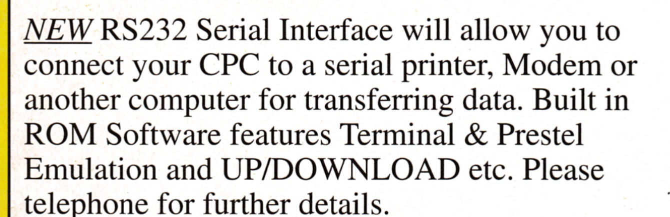
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THE SD MICROSYSTEMS INTERVIEW

Steve Denson, from SD Microsystems is a man with a mission - to prove to CPC owners that the CPC can be as good and as versatile as a £3000 personal computer. This, says Steve, is SD's main philosophy.

SD Microsystems started about 7 years ago, writing software for the Sinclair Spectrum and QL computers. When the CPC 464 was released in 1984, SD realised that here was a machine that combined the power of a 'real' micro, with the budget pricing associated with Amstrad. The rest, as they say, is history.

CPCA:
So, what would you say your main objectives in today's market are?

SD:
Well, basically, we're still proving time and time again that the CPC has the power and flexibility to hit PCs where it hurts. No other 8-bit computer has quite the same specifications, or combination of hardware as the CPC. Quite simply, the CPC is unbeatable!

CPCA:
How do you feel the CPC market has changed over the past 5 years or so?

SD:
Well, obviously the games side of things has taken a bit of a knock, which is strange considering that when the Plus range of CPCs were released, they were marketed exclusively as games machines. It just seems to have gone full-circle

CPCA:
So, what advantages does SD have over any other CPC software company?

SD:
We have been supplying the Amstrad market for over five years now, with serious software, not only for home, but also for business use as well. Our functional 'no frills' approach means that we can offer high quality products at low prices, providing a real alternative to complex and costly PC systems. Our customers range from the average home user to companies with turnovers exceeding £1 million!!!

Our advice service costs nothing for 60 days after the purchase of the product. Thereafter, we offer a Support Scheme which offers continued advice, upgrades where applicable, discounts on other S.D products and an occasional news sheet. The support scheme costs £12.00 a year, which is very good value for money, considering the support received.

CPCA:
But, as well as supplying serious software, don't you also support some serious hardware as well?

SD:
Yes, our 3.5" disk drive package has been selling for over 2 years and has been phenomenally successful. The drives used have TEAC mechanisms and the power supplies are in fact Amstrad PPC ones.

CPCA:
Don't you think that's somewhat overdoing things on the power?

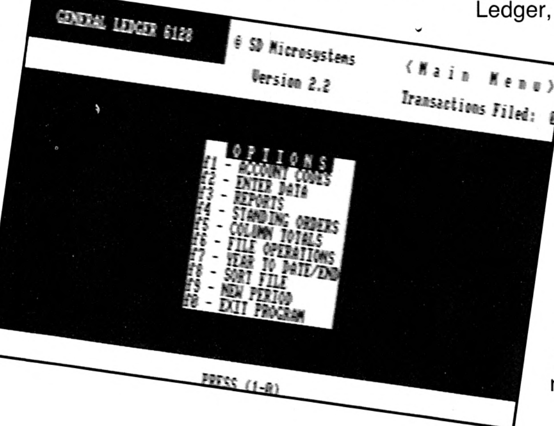
SD:
We could very easily use the cheaper plug type supplies, but the PPC ones have served us so well in the past few years, in terms of reliability, that we like to stay with what we know!

CPCA:
There's quite a big market at the moment for CPC 3.5" disk drives, with each vendor offering different software packages with their drives, what does SD have to offer?

SD:
With our drives, we supply some free 800k of software that will work with the user's own BASIC programs, many commercial packages and all the programs in our current software range. We also include a disk manager and a 3 to 3.5" file copier, so that data can be archived onto high capacity disks. Also, new to our range is the Random Access filer. This normally retails for £14.99, but is supplied free with our drives. And, on top of all that, we give five free disks which is something that no other supplier does. After all, there's nothing more annoying than getting a nice new disk drive only to find that you've got to fork out another £10 for a box of disks so that you can use it.

CPCA:
You seem to be quite heavily biased towards business packages for the CPC. Is this part of your policy towards proving that the CPC can do the job as well as the PC can?

SD:
Basically, yes. Products like General Ledger 6128 and Stock Accounting use the full memory on a CPC 6128 or 6128 Plus. This means that on General Ledger, you can have up to 300 transactions per file, which can be entered in at any order and then sorted into date order. The program then records all



receipts and payments, including automatic posting of monthly standing orders. A special split-screen data entry routine is used so that all the account headings are on view during transaction input. Although the income/expenses catagories are pre-set, most can be altered to suit the user. You can chose from a wide range of data reports, such as Bank or Cash statements, VAT Input/Output summaries, Profit and Loss accounts, Trial balance, NET worth, plus, of course, FULL general ledger listing. You can also choose the accounting period, eg: Month, Quarter, or Year, and there is also built-in support for producing cumulative figures from previous files to show the financial results for the year up to date, or to the year-end.

STOCK ACCOUNTING SYSTEM Master Menu
©1989 SD Microsystems Press f1-f0
f1 sales ledger
f2 stock invoicing
f3 statements
f4 stock control
f5 mini-calculator
f6 purchase ledger
f7 disc utilities
f8 change colours
f0 into BASIC

CPCA:
Okay, that just about covers cash trading accounting, but what about small businesses who need to keep track of their stock, as well as their dosh?

SD:
Funny you should mention that (we can even read minds! - ed.), but to compliment General Ledger, we have produced Stock Accounting 6128, which is a fully integrated stock control, invoicing and sales ledger system. Invoices are produced from the users' own product/price list with stock level adjustment, and customer account updating performed automatically. This means that there is absolutely no need to enter each program to alter the data - a real time saver! The program can handle up to 750 items of stock, each with a 9 digit product code, which is more than enough for most small businesses.

It stores 99 main customer names and addreses, you only need to type these in once (just as well really - ed.). On top of all this, Stock Accounting will print out full or selective stock or re-order lists. You won't find a better implemented system on the CPC!

CPCA:
What do you have at the other end of the scale? Maybe something a little less daunting for the home user?

SD:
Our package, Home Finance, helps you to keep track of home finances. Up to 30 different accounts (ie, bank, credit cards, savings and expenses) can be set, with up to 150 transactions per file. Any combination of accounts can be shown on statements, which are displayed in standard bank statement format. Also included is a printer report option and, to get you started, a demo on the disk.

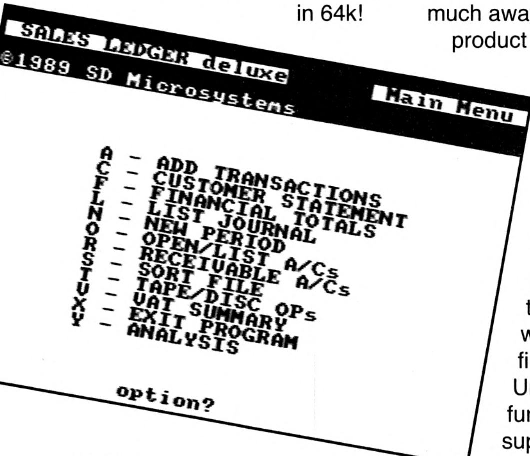
CPCA:
Whew! Turning to matters musical, one of your latest products is BooTracker, which is a musical soundtrack creator.

SD:
When we received BooTracker, which was written by a young chap who is a musician, we liked it because, in keeping with our policy, here was a package, written by a musician, for potential musicians. Who better to write a soundtracker?

It is definately one of the most flexible around, especially where timing is concerned. The other well-known soundtrack lacked flexibility in the timing department and the music files produced were a tad long. I mean, 14k for a 5 minute tune is ridiculous - BooTracker files are only 8k long. Bootracker tunes can be interupt driven, which means that they can play in the background without affecting the what is being worked on. For instance, you could have "Land Of Hope and Glory" playing while typing a letter on Protext.

CPCA:
We reviewed Picasso a little while back, how is that selling?

SD:
Not badly at all. There wasn't a decent commercial art package released since 1986 and that was Advanced Art Studio. With Picasso, we were able to make use of new programming techniques to give more flexible image manipulation. Originally, it amazed me that no one had released anything that anywhere near rivals AAS. We hope to set the record straight where that is concerned. You can do more with a screen on Picasso than you can with any other system on the CPC. Another Advantage of Picasso is that it runs in 64k!



CPCA:
Okay, so you support small businesses, large busineses, home users, and budding musicians, what about a little something for the programmer?

SD:
We have a programmer's toolbox, called Multi Code, which adds RSX extensions onto Amstrad BASIC. Included, is a front end graphics window, which is ideal for professional style menus, simplified PEN, WINDOW and BOX drawing commands, FADE screen commands, screen dump commands for text or graphics, pixel or character scrolling in ANY direction, as well as Double height text printing, Sideways printing and transparent text. The main code is also relocatable and occupies only 6k of memory. These are just a few of the commands available.

CPCA:
As mentioned earlier, Random Access filer is being released. What exactly is it?

SD:
RAF is a simple database that uses random access disk techniques. This means that files can be disk-based, instead of being stored in RAM. This gives the user the ability to have larger files than would otherwise be possible. It's not designed to be the best database in the world, but it does the job okay....

CPCA:
And what does the future hold for the CPC, as far as you're concerned?

SD:
Obviously, at this moment in time, we don't want to give too much away, but our next product is the Front Runner Desktop System. Basically, it is a MAC-style desktop WIMP system, which gives the user full control over all the standard filing and disk operations that would normally take various utilties. It will copy disks and files, as well as having Unerase and Rename functions and even supports file 'folders' instead of having cumbersome user areas. It features many other functions normally asscociated with a WIMP system and all from within a friendly icon-controlled environment. As long as the CPC is prosperous, we shall continue to support it and I think it's going to be viable for some time to come....

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The first European Demo Party, a meeting of the top demo-writing talent from all over Europe, was held at Black Mission's house (in Germany) during July 1991. Such an event couldn't just be a one-off, and so plans were made for a second meeting, this time in France, in the last weekend of July 1992. The place: a medium-sized hall in Reims, north-east France. Your intrepid correspondent set out from the heart of England on a 36-hour trek to get there. Rule one: never use French railways if you can help it...

All the gen on the second European Demo party from our man in France, ChaRleyTroniC.

IT'S PAR



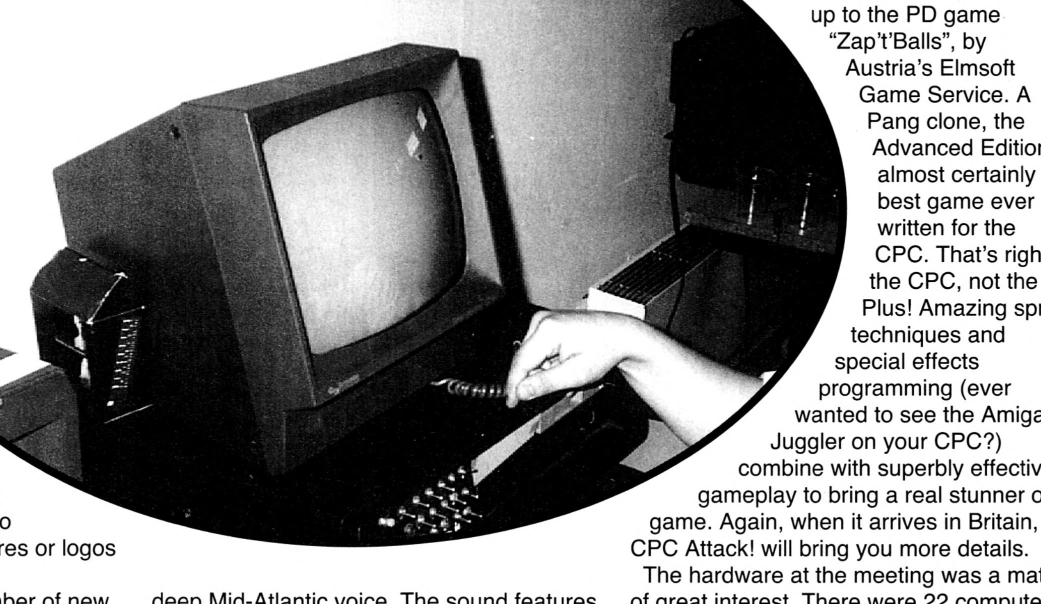
The French scene, obviously, was very well represented. Logon System were present en masse, as were various members of Paradox, 5KB, fanzine editors, and representatives of other groups. Many members of the German scene were also present, such as Cadjo Clan, HJT, and a particularly strong contingent from Beng! Switzerland's only three demo-writers (Asterix, TMP and Warlock) turned up, as did Elmsoft (from Austria): unlike last year, nobody from Denmark or Norway made an appearance, but Britain was represented for the first time.

Everybody present was issued with a smart, laser-printed badge, proclaiming their pseudonym and the group to which they belonged. This made putting faces to the famous names seen in many a demo much easier. In addition, many people wore specially designed T-shirts, ranging from those with simply a name written on in ink, to the spectacular works of art on Logon System's clothes. By the end of the meeting, a few previously blank T-shirts had also been decorated with the signatures or logos of everyone present.

There wasn't an incredible number of new demos released at the meeting. A few, such as the Castle Demo (produced a week earlier at a German meeting) surfaced, but, in general, previews (such as that of the 5KB demo 3) were thicker on the ground. One interesting snippet of information is that Logon System (the French coding team), programmers of the famous "The Demo", are working on "The Demo 2", and the "Shadow of the Beast", part of which (by Overflow) was on display for a short time to the general amazement of everyone. Parallax effects? Colours and modes mixed together on one screen? You got it!

This isn't to say that new releases weren't to be found, though. A music demo by Weee!, probably the most famous CPC musician, was on display - the difference being that it used the DMA sound features of the CPC Plus for superb effects, such as a sample of the words "Cadjo Clan" in a deep Mid-Atlantic voice. The sound features of the Plus may be less obvious than the graphics features, but something like this shows that they are just as much of an improvement. Weee! also promised a sound-tracker (music editing program: see the article last month) for the Plus range to use the DMA feature.

Staying on the subject of music, a sound-tracker for the standard CPC range was on display, written by BSC. "Sound-Trakker" has a host of amazing features, such as the ability to compile decent length tunes down to only 4k of executable code, its support for hardware envelopes, and the feature for generating "arpeggio" effects so that a chord of two or more notes is heard on one channel: undoubtedly the best CPC sound-tracker available. CPC Attack! will be the first to bring you more news when it hits these shores.



BMC's (slightly customised) 6128.

At this meeting, as well as the last, Pang - the console game where you have to shoot floating balls, splitting them into smaller ones which must also be hit - was a favourite with everyone. This year, though, it was overshadowed by the launch of "Zap't'Balls - The Advanced Edition", a follow-up to the PD game "Zap't'Balls", by Austria's Elmsoft Game Service. A Pang clone, the Advanced Edition is almost certainly the best game ever written for the CPC. That's right, the CPC, not the Plus! Amazing sprite techniques and special effects programming (ever wanted to see the Amiga Juggler on your CPC?) combine with superbly effective gameplay to bring a real stunner of a game. Again, when it arrives in Britain, CPC Attack! will bring you more details.

The hardware at the meeting was a matter of great interest. There were 22 computers in all: obviously the majority were CPCs (and a few Plus machines), but there wasn't also the odd Amiga, ST and even a Megadrive, which were used for playing shoot'em'ups and ogling 16-bit demos (to which CPC demos are getting ever closer). Of course, to us, the CPCs are the most interesting machines, and this was true at the meeting as never before. If you thought you knew what a CPC looked like, take a

still

PARTY TIME


Tuck in!

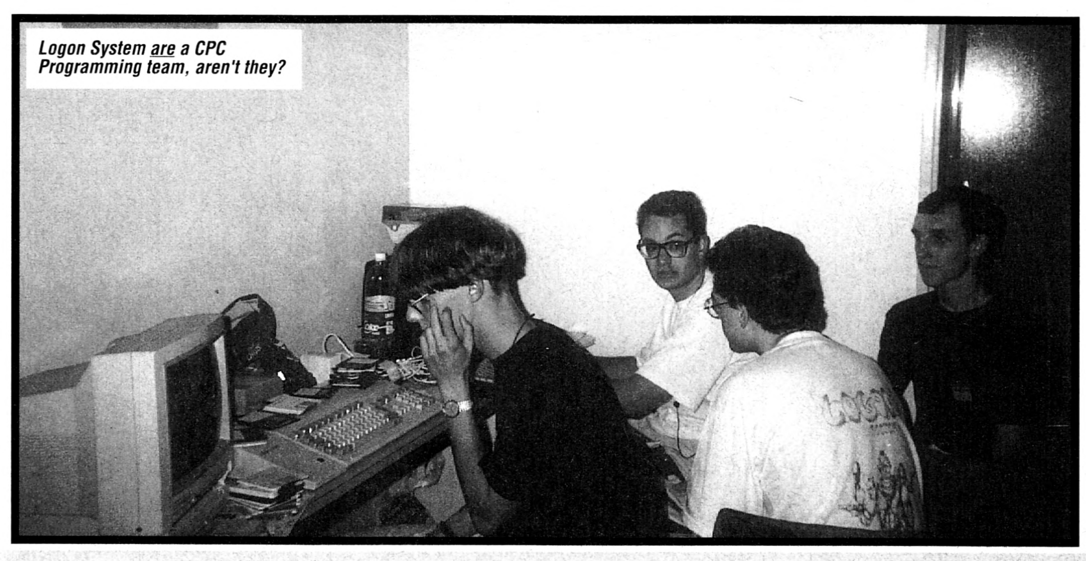
look at these beauties. A bright white machine, covered in graffiti? No problem. Or how about BMC's 6128 (although you could barely tell the difference), a conventional design - for a PC! Three units, a keyboard, a CPU unit (with four disk drives), and a monitor. The CPU was plastered with numerous switches, for drive switching and the like and sideways ROMs were an essential part of the design as well.

In contrast to these German machines, the French computers were much less adventurous. Even a ROM-board was a rare sight from the land which has brought us many of the best CPC demos ever produced, the main add-ons being dk'Tronics 64k expansions (for the 464s), second disk drives (unlike on our side of the Channel, the French go in for 5.25 drives much more than 3.5 ones), and the infamous Le Hacker cartridge, a French version of Siren Software's Hackit. In conjunction with the French assembler "DAMS", Le Hacker provided a standard French coding tool which had the advantage of never requiring reloading - a quick flick on for Le Hacker, reset, and DAMS is ready to be entered by a simple CALL from Le Hacker. The assembly time makes even the de luxe British combination of Protext and Maxam 1.5 look a little bit sick. By the way, before you start flooding the CPC Attack! offices with demands about how to get hold of DAMS, brace yourself: it's no longer in production...

Any 6128 owners out there looking to upgrade to a more powerful machine, such as an Amiga perhaps? Forget it. Thanks to a technological breakthrough by a German firm, it's now possible to upgrade from a normal CPC 6128 to a 6128 Plus, requiring only a GX4000 (which can be picked up pretty cheaply these days) as a donor for the ASIC brain chip. There's no difference between this and a "real" CPC Plus (except that you don't get the speakers in the monitor), and to prove it, a number of cartridges were up and running at the meeting, together with a short BASIC demo of the extra colours in operation. The only problem? As ever, the price: £150 is the charge for this service. When keen bargain-hunters can pick up 6128 Plus machines with colour monitors for around £200, the price of the upgrade (added to the price of a GX4000) looks a little less keen. However, it remains an interesting upgrade path, and another smack in the face (ouch) for those who said that, like accessing the Plus's extra features from outside a cartridge, it couldn't be done.

Beavering over a steaming 6128 in the corner were French fanzine bigwigs Neofyt and Zalko, who (with help from Niki, the organiser, and your correspondent) were working on the official fanzine from the meeting. This contains a list of the people present at the meeting, together with a short comment (French and English translations) from everyone. Most people paid tribute to Niki's undoubtedly excellent organisation, not forgetting those (particularly amongst Logon System) who praised the virtues of hard rock music. One problem: how do you translate "Doom Metal" into French?

Finally, the meeting was also a good place for the assorted coders to let their hair down, stuff themselves silly with the plentiful French sticks, crisps and (of course) Coca-Cola, and engage in various lunatic acts. One word of warning: if you're travelling in France at the end of July next year, and you see a Renault 5 heading your way, with people waving out the windows, swerving all over the road, it might be advisable to pull over and wait until it's passed...


Logon System are a CPC Programming team, aren't they?

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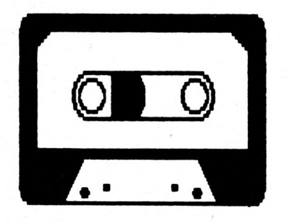
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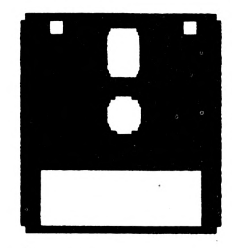
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GRAFIX 6 | SONIX 6 | GAMEPLAY 6 | DIFFICULTY 8 | 59%

CODEMASTERS • £3.99



SCREENTEST

This month, as always, Richard Wildey reviews the latest crop of releases and, as a special treat for Halloween, picks out seasonal games in the feature Trick or Treat.

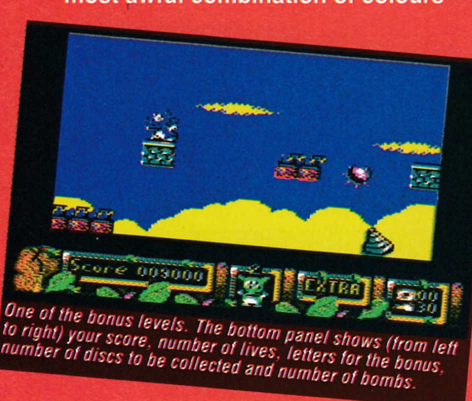
DJ PUFF

Little Puff is little no more. In fact, he's grown up and is living on an island with his friends...life just couldn't be happier for DJ - as with all cute and fluffy Codemasters adventures.

That red disc, in to the left of the little green dragon (you), is one of the five discs needed to complete the level.

Of course, something bad has to happen. Well there wouldn't be much point to the game if nothing did! The evil Captain Kripp has stolen Puff's complete CD collection and it's your job, as DJ Puff, to rescue them. To do this, you'll need to bounce you way though four different levels, each with five compact discs to collect.

Once you have found the CDs, you must make you way to the hidden exit which is otherwise blocked off. Once through the exit, you're transported to a bonus level where letters, which spell out 'EXTRA', are scattered about ready for the taking, though the same obstacles as found on normal levels are present. Each level is different with its own graphics, though level one has the most awful combination of colours ever seen on the CPC, but it makes a change from the usual Spectrum port graphics, I suppose. Level two, on the other hand, is easier on the eye with a darker shade and a prehistoric feel.



One of the bonus levels. The bottom panel shows (from left to right) your score, number of lives, letters for the bonus, number of discs to be collected and number of bombs.

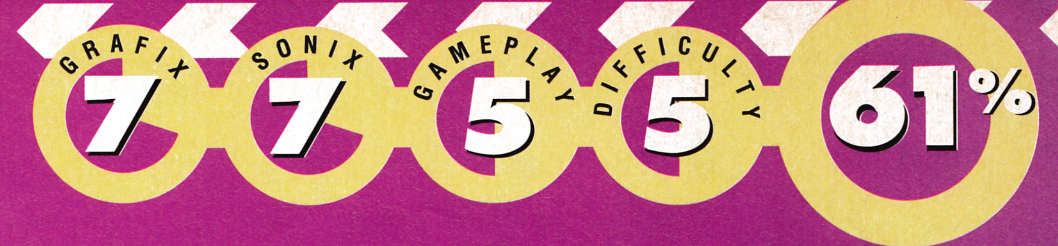
The gameplay is a bit like Rainbow Islands, though nowhere near as fast and polished. The creatures include Douglas the Snail (shouldn't that be Brian?), jelly babies, and spear chucking natives. All can be blown up with bombs, providing you've picked them up or, of course, fried (talk about bad breath!).

It won't be long before you find yourself smashing the keyboard out of frustration. The keys are not as responsive as they could be and, on occasions, you'll find yourself losing two lives in a row with no means of escape.

I'm not quite sure what happened to the "Ravin' Music" Codies yap about in the inlay card, but there is a little lullaby of a tune that plays throughout. DJ Puff is a run-of-the-mill game, too sluggish to warrant a higher score but it's tough enough to keep most happy for a long, long time.



Level 2: Whoops! Don't hit those birds or any moving creatures for that matter.



STUN RUNNER

HIT SQUAD • £3.99

Race your futuristic bobsleigh through winding tunnels and twisting roads at speeds of up to 900 miles per hour. Well, to be more honest, it's more like 9 miles per hour!

Each of the 24 levels is a course of tunnels and roads which you must complete in a set time limit. With other vehicles coming toward you head-on progress isn't easy, but most can be shot. Some, however, are indestructible and must be avoided or a nasty collision ensues. In the tubes, you can roll 360 degrees to fly over obstacles, but during the road sections they must be avoided or destroyed.

Along the courses are green stars and orange rectangles which should be picked up, by driving over them, to give extra bonuses. The rectangles provide extra speed while the stars provide shockwaves which annihilate everything in their path as well as displaying the fastest route to complete the track.

The runner heading straight for a pad to boost speed. Stars can also be picked up in the same way.

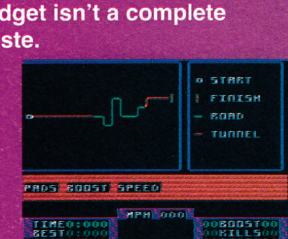
The only way you'll pick these up is if you happen to be in their path because you can't move from left to right fast enough and if you do try, you'll end up hitting someone!

Stun Runner at maximum speed can be quite fast and playable though, much of the time, you'll find yourself crawling along a snail's pace after being hit by a craft that's just clipped your wingmirror. The graphics are decent and the flashing tunnel hypnotic if you play for too long. The tune played in between levels is worth listening to, but for some reason the programmers forgot to turn it off during the next level load, so, the tune is stuck on one note which plays continuously though the loading! This is very irritating and if any tape load error occurs you won't hear it!

In the tunnels, you can bank the sides and rotate 360 degrees, but will the Stunrunner get back onto the flat in time to collect the green star?

Stun Runner, a race against time to complete a track of tubes and roads.

In the arcade, two aspects drew people to the Stun Runner machine. One was the speed and the other was the console design - you sat on a craft, similar to a jetski, which swung from left to right. The CPC version has neither of these, just 24 levels of much the same roads and tunnels, and so isn't appealing in those respects. After a short while, the game loses all its appeal, but on budget isn't a complete waste.



Before each race you are shown a map of what is to come and are also given a little racing tip.

The adventure column may be gone, but we still support adventures. Here is the first adventure reviewed in this section

DOUBLE AGENT

TARTAN SOFTWARE • £4.95

Contact: 61 Bailie Norrie Crescent, Montrose, Angus, Scotland, DD10 9DT

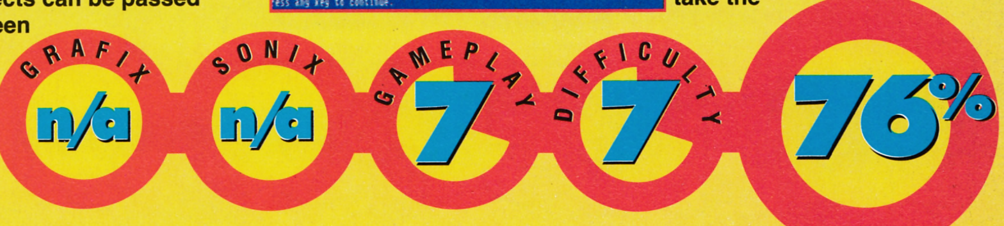
Double Agent, written with the PAW, is an excellent example of what it can do in the right hands (paws!). It is a text-only adventure where you control two secret agents who can be toggled between at any time. Each agent has its own attributes; one is more intelligent than the other (eg. Agent 1 can't read or use a computer!) etc.

Objects can be passed between each agent when they meet in the same room. What makes this adventure better than most is its quality. It learns and remembers as you play which reduces repetitiveness. For example, once the method of how to open a door with a passcard is worked out, you need not do it again. From there on the game tells you that, "the door is closed, but I know how to open it." And it opens it!

Control between the two agents can be changed by pressing [1] or [2]. It couldn't be simpler.

Another novel idea is in the collection of objects. If you examine a table and find a book, it is likely that you'll take the book. Instead of typing EXAMINE TABLE, GET BOOK you need only type EXAMINE TABLE, the parser will then reply, "You see a book, do you wish to take it yes or no?"

Double Agent is a wonderful adventure game with a £50 prize to whoever completes it first. I know I'm certainly going to try!





Codemasters • £3.99
0926 814131

In First Division Manager, you're boss of a team with pretty lousy players. It is your job to fight your way to the top of the league and win the cup. To do this you'll need to buy, sell and train players .

These, and other options are chosen via a cursor system in which you click on various options from a main screen. This then takes you into sub-menus where a wide variety of additional options are available. Click on the telephone and a list people you may wish to ring appears. The scout offers to sell information on other teams at high prices which can be haggled. Other people in your phone book include the physiotherapist, bank manager and the transfer manager.

The transfer market is one of the best in any management sim - all players are available for sale if the price is right. After you choose your team and formation, the game can be viewed from overhead with running commentary so that those players that need extra training and from the opposition which are worth buying can be spotted. This is one of the best management sims I've played in a long while.

The sound bounces along as if it should be in a Dizzy game and the graphics are of a high standard.

1st DIVISION MANAGER



Just one of the menus which can be selected from the main screen.



The match screen: watch the men running about on the field and get told who's doing what in the box below. GOAL!

EMLYN HUGHES INTERNATIONAL SOCCER

Touchdown • £3.99
0268 541126

Emlyn Hughes, re-released under the new Touchdown label, involves both management and arcade skills including a large variety of options which allow the alteration of player's names and their various skills.

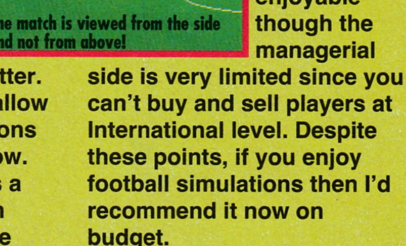
Not only does this allow you to customise each team, but it also helps to alter the skill levels when playing against the computer. A two player mode is available, but it requires a joystick splitter.

The gameplay doesn't allow you to pick team formations and the game is a tad slow. Included in the control is a momentum aspect which may make the game more realistic, but also makes it frustrating and difficult to control a player at times - especially if he has just been tackled and needs to turn around quickly.

The action is viewed from the side instead of the birds-eye view employed in most of today's soccer games. There's a range of moves including headers and backheaders.

The graphics and spot sound effects are both quite good except for the half-time whistle which sounds like a dying mouse. Overall the game is enjoyable though the managerial side is very limited since you can't buy and sell players at International level. Despite these points, if you enjoy football simulations then I'd recommend it now on budget.

The WIMP driven menu screen from which all options are selected.



The match is viewed from the side and not from above!



GAMEPLAY 7 DIFFICULTY 6 73%

TOUCHDOWN!

Strike Force Design •
£4.95 (tape) • £14.95 (disk)
Mail order only: PO BOX 40, Sunderland , Tyne & Wear . SR2 8DF

Touchdown! is Strike Force Design's first release for the Amstrad. Written entirely in BASIC, this American football management simulation relies on the strategy side of the game and not the action.

The game is designed to be played over a long period and the team you select on first loading the game, is the team that you'll play with all season - which will require a few sessions to complete. When you have finished playing you "Lock up and go home." This automatically saves your current statics, ready for when you next boot up.

Before each match, you're presented with an option screen from which you can execute a number of commands such as spying on the opposition, gain advice and view league tables and fixtures. Having done this, you move on to the match. The games are played using offensive and defensive plays, each with its own advantages and disadvantages which are well explained in the manual. Unfortunately you don't see graphical action, but a small running commentary scrolls in a window.

The disk version is reviewed here, but the tape version is a cut down (presumably to save on loading) version and is £10.00 cheaper. A good simulation strictly for American football fans.



Select your option from here before each match.

The match screen: the plays possible are listed and the left & right hand columns with an overhead view of the field in the centre.

GRAFIX 2 SONIX 1 GAMEPLAY 5 DIFFICULTY 8 60%



SOMETHING NEW

Bigger, bolder,

Ruffa, tuffa—

In other words, sukka,

THE ONE AND ONLY DOMINATOR

(And still frightfully radical actually)

RWARD

CPC Attack: Top 50

GAME	COMPANY	PRICE -CASSETTE	-DISK	RATING
1 LEMMINGS	PSYGNOSIS	£15.99	£19.99	98%
2 PRINCE OF PERSIA	DOMARK	£10.99	£15.31	97%
3 SMASH TV	OCEAN	£10.99	£15.99	96%
4 RICK DANGEROUS	KIXX	£3.99		95%
5 RAINBOW ISLANDS	HIT SQUAD	£3.99		94%
6 TURRICAN II	KIXX	£3.99		94%
7 SWITCHBLADE	GBH	£3.99		94%
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9 THE ADDAMS FAMILY	OCEAN	£10.99	£15.99	94%
10 NORTH & SOUTH	INFOGRAMES	£9.99	£14.99	93%
11 HUDSON HAWK	OCEAN	£10.99	£15.99	93%
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23 TERMINATOR 2	OCEAN	£10.99	£15.99	91%
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49 GAUNTLET II	KIXX	£4.99		86%
50 BARBARIAN 2	OCEAN	£24.99(cart)		86%

Badlands is a Super Sprint variant with guns - the other cars can be destroyed with missiles. Badlands, like Super Sprint, is an over-head view driving game with all the action taking place on a single screen.

Three armoured cars, including the one or two you can control, drive round a series of different courses collecting spanners by driving over them. These can be traded in at the end of each race for power ups such as turbo, tyres, missiles, shields and speed. Turbo gives faster acceleration, Speed boosts maximum speed, Tyres allow better cornering and so on. These extras are not necessary on the first few races, but as progression is made, opponents become tougher.

Check your position against the other drone cars in the results screen.



Race around the track beating the blue and yellow cars. Easy in the first few levels, but it slowly gets harder.

Missiles have the power to destroy and firing without them slows down the cars. They are really unnecessary and spanners are best spent on other things such as speed and tyres.

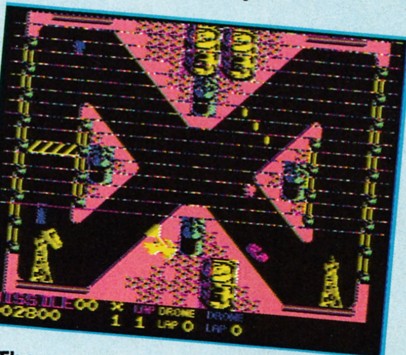
Each level has its own backdrop, drawn in the high resolution MODE 1. These zones which include The City, The Desert and The Oil Refinery, change with every level. There is no difference in gameplay between each of the levels, they are just graphically different.

In addition to normal hazards, such as twisting and turning roads and the two other cars, who incidently, don't have the power to shoot back at you, there are other obstacles to impede your progress. Large spikes come up from the ground at certain intervals, these are supposed to stop you, but more often than not can be driven through. Water puddles slow you down while oil patches send cars into uncontrollable skids. Oil drums with helicopter-like propellers (mines, I think!) kill you if driven into, though they can be exploded with a single shot.

The Oil refinery - another level. Your number of completed laps, spanners and missiles are logged below the main display.

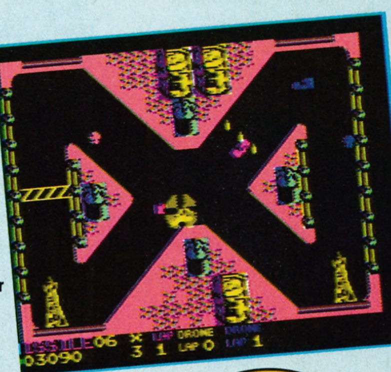
Select your add-on by turning the steering wheel to highlight the chosen extra, but make sure you do so in the given time limit!

With all this carnage it is just as well that there's an unlimited number of lives. Once killed, a helicopter flies in from the right and deposits a replacement at the same spot on the track.



This all sounds very familiar and a quick look at the back of the packaging reveals that it is by the same team that programmed Super Sprint. But, is this an improvement? Yes. The gameplay is better with faster moving cars and better collision detection. The graphics aren't as good though. The warfare adds a lot to the game, especially when playing in two player mode.

The game's main drawback is that it only has eight different tracks, none of which are very tough to complete though some are a bit confusing. The bridges are not defined well enough and in the first few games I found myself driving into walls when trying to go under bridges.



After a crash, the track helicopter flies in a replacement car where the incident occurred, wasting precious seconds.

The game starts with an excellent foot tapping title tune, but the game sound is limited to the screeches of wheels, brakes and the drone of engines. A good game but if you're after this sort of game you're better of with Super Cars or Championship Sprint (Super Sprint and its level designer)

GRAFIX	SONIX	GAMEPLAY	DIFFICULTY	
4	7	2	7	69%



Hit Squad • £3.99



TRICK OR TREAT

With Hallowe'en only a few weeks away, Richard Wildey digs up some of those spooky games that have cropped up over the years and discovers which are trick and which are treat

Horror film licences would seem like a good source for a spooky game. Though very few spin-offs have occurred, the biggest was Friday the 13th, but that one is best forgotten. With all the Nightmare's on Elm Street, I'm surprised no-one has tried to write a game around that. How about it Ocean?

Of all the film licences, one of the best for the Amstrad is The Addams Family, which scored a massive 94% in issue 3. However, The Addams Family wasn't the only family to fit into this spooky category - Alternative's Munsters certainly had a few bizarre members.

On such a spooky subject, the question must be which game had the cutest ghosts? Was it Bubble Ghost, The Addams Family or the old Gremlin game Mickey Mouse? "Mickey Mouse?" I hear you cry, "What's that got to do with Hallowe'en? " Poor old Mickey is sent to rescue Merlin's magic wand and, in doing so, is attacked by hoards of mad ghosts and other evil ghouls. Bubble Ghost was a ghost with more huff'n'puff than the big bad wolf. In the game, you blew a bubble, from room-to-room, keeping it away from large spikes and other sharp objects which would pop it on contact. If you liked the ghosts in the The Addams Family, I suggest you go up the chimney for a surprise. That should keep those who haven't got the game guessing!

LOVEABLE HAG

Cauldron and its sequel were probably the most famous games to dabble in witchcraft. In the first, you play a loveable hag who flies around on her broomstick in a quest to collect six magic ingredients which, when mixed, rids an evil pumpkin from the land. In Cauldron II, the roles are reversed - you become the bouncing pumpkin jumping from platform to platform. Both of witch (sorry, which) were excellent games for their time.

The other Hallowe'en double-act must be Ghosts'n'Goblins and its sequel Ghouls'n'Ghosts. The later, as is the tendency with games, unlike movies, was the better, with more ghost-zapping action than before.

Back in 1987 CRL started to produce a series of horror adventures including Dracular, Jack the Ripper and Frankenstein. Each of these was censored and given a 15 rating. At the time CRL denied it was all hype, but was it? Why were they rated such? Both Jack the Ripper and Frankenstein were good adventures, but the digitised pictures added nothing more to the gameplay. The serious adventurer is more interested in what games have to offer in content and puzzles, not in gory pictures of severed heads. Lurking Horror is good example of this. Should these adventures have been censored with a 15 rating? The quality of digitising on the CPC is such that nothing too disturbing was ever shown. Young children should not have played these games because of the graphics, but were they really necessary?

None of the old CRL adventures is available now and the only way you can pick them up is second hand. Some old adventures can now be bought from new companies such as WoW Software who have taken it upon themselves to find the original authors and buy the distribution rights.

WHO YA GONNA CALL?

If all this mention of things that go bump in the night has you hiding under the duvet, clutching your teddy bear and hot water bottle, then fear not, for there has been a few Ghostbusters too.

The original oldie Ghostbusters, released back when the CPC was a mere toddler, was, unlike the film, a bit thin on the ground, though I do remember playing it for hours on end and I've still got my old account number floating around somewhere. I never did work out how it remembered your number, any ideas?

Years later Ghostbusters 2 appeared, but this time from Ocean (now available on Hit Squad) as opposed to Activision, who released the original and have long since given up on the CPC (Grrr!). Ghostbusters 2 did the film some justice, a real tough game to beat, but worth trying all the same.

In between these came Ghost Hunters and The Real Ghostbusters. Ghost Hunters, from Codemasters, was a sort of cross between Super Robin Hood and Operation Wolf. The Real Ghost Busters, based on the cartoon, the book, the comic, the plastic figures and all the other merchandising that went with it, was a fairly mediocre game, offering nothing special.

Enough of these ghosts, what about the evil lord of darkness himself, Dracular? Gremlin once released a game called Vampire's Empire in which you played the mad vampire-hunter Doctor Van Helsing who is trying to rid the world of Count Drac and his fellow creatures of the night.

So what are all these games like? We've reviewed ten old and new to give you a taste of what you should be playing on the 31st.



THE ADDAMS FAMILY
We haven't changed our view since issue 3. An excellent game with an addictive quality that more games should have. Instantly recognisable tune and brilliant graphics.



CAULDRON 2
This time you're a space-hopper-like pumpkin. Not as playable as the original, but still a fun game with the same top notch graphics and sound.





CAULDRON
Fly around on your broomstick collecting keys and the six magic ingredients. Good soundtrack and graphics which still haven't dated even though this was the first game I ever bought!

MICKEY MOUSE — 70%
Flatten Frankenstein and spray spectres with your magic water-pistol in a fight to save Merlin's magic wand, stolen by the Ogre King. A fun game, though the graphics are a bit blocky and the title tune very odd.



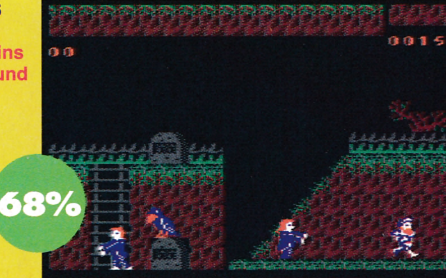


BRIDE OF FRANKENSTEIN
A tedious arcade adventure that has you waddling around trying to find you husband. Boring game with blocky graphics and dull music.



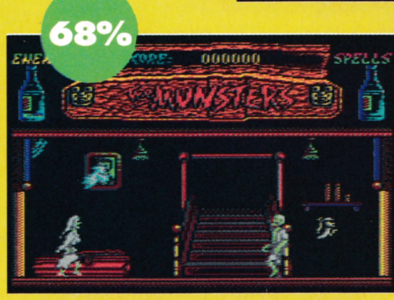


BUBBLE GHOST
In Bubble Ghost, save your bubble from certain disaster by blowing it away from spikes and such like. An original idea which worked well, albeit a bit tough.



GHOSTS'N'GOBLINS
The classic arcade game Ghosts'n'Goblins has you running around chucking swords at zombies and flying knights. Great in its time, but looking a little dated now.

JACK THE RIPPER — 60%
Prove your innocence for the Whitechapel murders in CRL's over 15s' adventure. Good adventure in two parts with gruesome digitised graphics.



THE MUNSTERS
Control various members of the Munster family in Alternative's tough spin-off of the old TV series of the same name. Nice graphics with bold, large sprites and an instantly recognisable soundtrack. A playable game, though it will take a lot of practice to perfect.



SLIGHTLY MAGIC
Slighty Magic was released recently as part of Codemaster's Cartoon Collection. Control Spike and solve puzzles in a bid to rescue Princess Croak. Much like most of Codemaster's cartoon stuff. Good game with flickery sprites.

Competition

In keeping with the haunted theme, Ocean have supplied 20 copies of The Addams Family and Alternative have supplied 50 tapes of The Munsters to give away. To get your grubby mits on the games of the two strangest families around, write the answer to this question on a postcard or the back of an envelope:

Who are the tallest members of each The Addams Family and The Munsters?

The first 20 correct entries plucked out of the CPC Attack! official Competition hat will win The Addams Family on tape or disk (please specify) and next 50 will win a copy of The Munsters on tape. All entrants will receive a copy of the Alternative produced magazine, "GAS".

Send all entries to:
Creepy Compo,
CPC Attack!,
HHL Publishing,
Greater London House,
Hampstead Road,
London NW1 7QQ
or FAX on 071-387 9518

The same old rules apply (as always) and the closing date is 20th of November 1992. PS. All games offered as prizes are new.

FIGHTING SOCCER

GRAFIX 7 · SONIX 8 · GAMEPLAY 7 · DIFFICULTY 7 · 73%

This is the only football game on the CPC that has music accompanying the matchplay, which doesn't, surprisingly, slow the game down. There's no management, just arcade matches and you can forget references to other normal overhead football games, with sprites only a few pixels square, too. Fighting Soccer has large, bold sprites that get even bigger when objects, such as the ball and players, move higher - upwards toward the front of the screen. This is possible because of the use of fewer sprites as only five-a-side soccer is played.

Games can be played against the computer or another human, as with most football simulators, though with the two player option, players can play on the same side. There is no chance of losing players as a small map, at the side of the pitch, keeps track of each. The time and score are also shown on the display panel.

Each match only lasts 3 minutes, though this should be long enough for a couple of goals to be scored - not nessacerily on your side though!

Matches can become confused at times, with the ball being transferred from one player to another in an instant, but even so, Fighting Soccer is still one of the best games in the pack.

Fighting Soccer is only five-a-side, but has the playablity of other football games with full squads.





KICK OFF2

In this sequel, Anco decided to go for the more colourful but chunkier MODE 0 graphics. Movement is smooth and speedy. Not as fast as Italy 1990, but faster than the original KickOff. One minute you'll be running along chasing a player, he'll stop and you'll end up in the car park tackling a Mini. The controls certainly take a bit of getting used to.

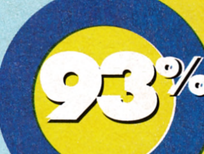
A map of some sort (as there is in the 16-bit versions) would have helped gameplay a great deal. As is, you're sometimes left randomly moving character that you can't see in an attempt to get back on the screen. The game's option has improved on the original. Most settings can be varied; wind, time and team tactics to name a few. Leagues and Cup setups can be chosen as well as one or two player 'friendly' matches.

On the down side, sound is limited to a rather pathetic whistle and the keyboard controls are fiddly. The best game in the compilation, even if does look a bit dated.

GRAFIX 7 · SONIX 3 · GAMEPLAY 8 · DIFFICULTY 6 · 93%

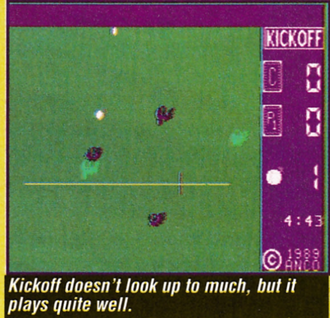






KICK OFF

GRAFIX 4 · SONIX 3 · GAMEPLAY 7 · DIFFICULTY 6 · 74%



Kickoff doesn't look up to much, but it plays quite well.

At first sight, KickOff doesn't look like it's worth all the hype originally given to it back in 1990 when it was first released. However, what it loses graphically, with it 's Spectrum-type colours and flickering sprites, it certainly makes up for in gameplay.

Its multi-directional scrolling is fast and smooth with players being easily controllable. The control method is the same as with all the other games in this pack; you control the footballer nearest the ball, when the ball is nearer another player, control is automatically transferred to him. Simple!

Again, as in the other games, choice of one or two players is available and league tables/position can be saved to disk or tape.

Sound is poor with only bouncing ball and high pitched whistle effects. The difficulty can also be set for those who feel the opposition is just too good.

Playable but not as good as its sequel.

MANCHESTER UNITED

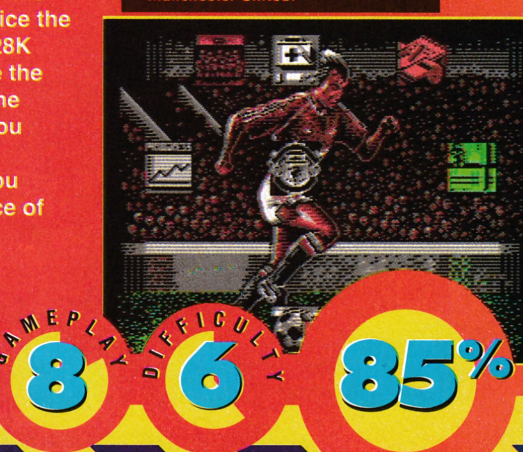
Manchester United is the only management game of this compilation and, as a bonus, it also has an arcade matchplay sequence. These matches are not a patch on those of the other three games, being rather slow with poor quality graphics, but are okay for a kick around.

The management section, on the other hand, is very good, with a stonking tune that plays throughout, and is graphically impressive. The section is totally cursor controlled with icons. These are clicked upon to view players attributes, alter training, buy and sell players and all the things you can do in most managerial games.

The main drawback, though, is that twice the gameplay means twice the loading - even on 128K machines. You have the option to play just the arcade matches if you don't fancy football management, but you don't have the choice of manager-only play.

If you're prepared to sit though all the loading and rewinding then this, no doubt, is up to the standard of the others.

Select your option with the cursor from this main menu screen in Manchester United.



GRAFIX 8 · SONIX 7 · GAMEPLAY 8 · DIFFICULTY 6 · 85%

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MACHINE CODE TUTORIAL

ChaRleyTroniC continues with an explanation of the CRTC, the CPC's very own Quantel Paintbox!

Last month, we looked at the first seven CRTC registers (numbered 0 to 6) and discussed how they were accessed: as a quick refresher, each register is selected by sending the register number to port &BC00 (for example, OUT &BC00,1) followed by the value to set to port &BD00 (such as OUT &BD00,48). We also mentioned the numerous compatibility problems between different models of CRTC. Now, if you're sitting comfortably, we'll launch into the remaining registers:

REGISTER 7: VERTICAL SYNC POSITION (USUAL VALUE 30)

In the same way that the "Horizontal Sync Position" (register 2) controls the horizontal position of the screen on the monitor, this register controls its vertical position. Setting it to a higher value (such as 32) will move the screen up the monitor (it's easier to see the results of your experiments if you set the border to a different colour), whereas a smaller value, funnily enough, moves it down. An effect used by demo-makers in the past to give the impression of a larger screen than usual is to draw some graphics towards the top of the screen, with a scrolling message at the bottom, and move this down the monitor using register 7. This places the graphics in the centre of the screen, and makes the demo seem as if it is using an enlarged screen to generate the scrolling message at a low position.

REGISTER 8: INTERLACE MODE AND SKEW (USUAL VALUE 0)

This register has two functions. Its main function is to select or deselect "interlace", a term which will be familiar to Amiga owners: if selected, it causes the screen to be displayed at a very slightly different vertical position every other frame flyback. This means that, by switching between two screens (say, one at &C000 and one at &4000), an extra-high resolution screen - up to 640 by 400 - can be obtained with a refresh frequency of 25 Hz (i.e. 25 different images every second).

Unfortunately, on a colour monitor, the image usually fades too quickly for it to persist while the second scan (from a different address) is displayed. However, green screen monitors are more persistent (as you will know if you have seen a green screen switched off after a hard day's coding!), and so this effect is more useful on such screens. Interlace is selected by setting bit 0 (i.e. sending 1 to this register), and turned off by resetting it (send 0).

The other function of this register, which involves bits 4 to 7, is known as "Blanking Delay Bits". These are used on some systems to compensate for the delay in transferring data from screen memory to the CRTC. However, the good design of the CPC means that these aren't needed on our machine.

REGISTER 9: MAXIMUM SCAN LINE (USUAL VALUE 7)

This determines the number of pixel lines in each character line: the normal value of 7 indicates that each character is 8 lines high, so a value of 1 would tell the CRTC to only display 2 lines. Although it may seem fairly useless to alter this register, it does have some purpose. For example, change the border colour and then set it to a small value (0 or 1). You will see that the screen repeats itself on the monitor and so, by writing a scrolling message on the lines that are displayed, it will be repeated up to seven times on the monitor. With clever use of rasters, it would be possible to have it in a different colour each time!

REGISTERS 10 AND 11: CURSOR START/END (USUAL VALUES 0)

These are provided for the

option of a hardware-generated cursor on the screen. Although a "CURSOR" line is provided on the expansion port, such an option is not supported as standard and, without a fair amount of mucking about, it's difficult to achieve: besides, the excellent software cursor support in the firmware makes this largely irrelevant. Not a register of much use to demo-writers.

REGISTERS 12 AND 13: START ADDRESS (USUAL VALUES: 48, 0)

Now here's something a bit more interesting! This pair of registers controls the origin address of screen memory. The first ten bits (that is, all eight bits of the least significant register, register 13, and bits 0 and 1 of register 12) are used to control the offset in a particular screen block, from 0 to 2046. These ten bits can be used to generate a value between 0 and 1023, which is doubled to find the offset. So, for example, to scroll the screen left by two bytes, or one MODE 1 character (assuming that it hasn't already been scrolled), send a value of 1 to register 13. This can be done from BASIC by OUT &BC00,13: OUT &BD00,1. Beware, if the operating system causes the screen to scroll after this command has been issued (e.g. by a "Ready" message), then the screen will be put back to what it should be!

Even more interesting revelations come to light by exploring the remaining bits of register 12. Bits 4 and 5 select which 16k block the screen will be situated in: setting both of them to 0 selects the block from &0000 to &3FFF, whereas setting both to 1 selects the standard arrangement of &C000 to &FFFF (hence the usual value for register 12, 48, which is 00110000 in binary): for &4000 to &7FFF, set bit 5 to 0 and bit 4 to 1 and for the one remaining possibility of &8000 to &BFFF, bit 5 goes to 1 and bit 4 to 0. The bad news for those of you with 128k (or even more) is that the CRTC is connected directly to the base memory chips, and so even if you have selected some sort of bank switching arrangement, the CRTC will continue to display a screen from the first 64k.

Even more? Register 12 has one remaining function to be dealt with, which is the size of screen memory - the CPC usually has 16k of screen memory. Setting bits 2 and 3 of register 12 to zero (or, in fact, just ensuring that either of them is 0) will keep this in operation. Set them both to 1, though, and the CRTC will let you access a mammoth 32k of screen memory. When combined with appropriate settings in the CRTC registers dealing with the dimensions and position of the screen, this lets you obtain "overscan" (i.e. an enlarged screen with no border) fairly easily!

When 32k screen size is selected, two screens (mapped in the normal way) are displayed on the monitor, one after another. These two screens must follow consecutively on from one another: so, if your screen origin (bits 4 and 5) is set at &C000, then memory between &0000 and &3FFF (wrapping around 0) will be used as screen memory, too. This poses the problem that there is a significant amount of important code from &0000 to &003F, which will be displayed as "graphics" on the screen. A better solution, then, is to set screen memory up, starting at &0000 (and hence flowing through &4000 to &7FFF), and use the screen offset (register 13, and bits 0 and 1 of register 12) to move the origin past this data.

REGISTERS 14 AND 15: CURSOR REGISTER (USUAL VALUES 192 AND 0)

To bring us down to earth with a bump, two more virtually useless registers. These two are designed to define the position of the hardware cursor, but as mentioned above, this isn't supported as standard on the CPC.

REGISTERS 16 AND 17: LIGHT PEN

These registers are read-only and are loaded with the current address being displayed by the electron beam when the "LPEN" line on the expansion port is pulsed. This is designed so that a light pen can detect the electron beam passing, send back a signal and the current screen address (and hence position) can be read from these registers. However, the fact that not all CRTCs are capable of reading registers means that this method is of little use for interfacing light pens.

THE CODE

Only a short piece of code this time, to set the screen up to an overscan format with memory from &0000 to &7FFF: it's intended for use in your own demos, code starting at &8000. This is a good example of how the different registers of the CRTC are used, and it is compatible with all models of the chip. The "crtc:" subroutine could also be useful in your own demos!

```
org &8000

ld bc,&0130: call crtc     ;48 columns wide
ld bc,&0385: call crtc     ;&85 left hand fine positioning
ld bc,&0233: call crtc     ;51 left hand coarse positioning
ld bc,&0724: call crtc     ;36 top positioning
ld bc,&0622: call crtc     34 line screen
ld bc,&0C0D: call crtc     ;&0000/&4000 block, 32k
                           screen memory
ld bc,&0D00: call crtc     ;screen memory setting
                           continued
ret

                           ;Set CRTC register B to C
                           (corrupts AF,B)

crtc: ld a,b
ld b,&BC: out (c),a        ;OUT &BCxx, register
                           selection
inc b: out (c),c           ;OUT &BDxx, value to send
ret
```



PUBLI SEC

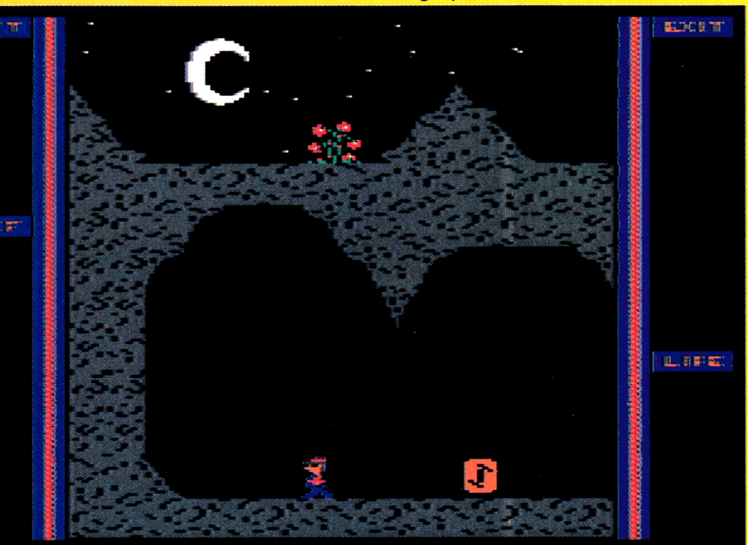
This month, we deviate slightly from the usual format, as Rob Scott takes an in-depth look at some of the homebrew programs available

Homebrew programs are those written by enthusiasts who wish to sell them, but not at over-inflated commercial prices. The quality of these programs generally tends to be better than those available in the Public Domain, though in some cases, not good enough (or perhaps too different!) to be sold in bulk by a software house.

The same copyright rules apply as to a game produced by any large company such as Ocean, so don't assume that because homebrew software is cheap, that it is PD - it isn't!

Our first dealings this month are with Pipeline Software, publishers of two excellent games, called Dais'cin with Death, and Rune Magik.

DAIS'CIN WITH DEATH • £4 DISK ONLY • PIPELINE SOFTWARE



Dais'cin With Death - a sort of homebrew Manic Miner style game.

The first thing to come into my head when I saw this was how very Manic Miner'ish it was. You control a small man who jumps across large gaps onto moving platforms, etc., in an attempt to obtain the key to the exit of each level. The game, all written in Machine Code (no Sprites Alive, or compiled BASIC here!), is well presented with a useful Redefine keys option, which for homebrew software is rare, and indeed a very nice touch. The graphics tend to flicker and are not of particularly high standard, but apart from this it's obvious that Robin Gilbert is a very proficient programmer.

RATING: 65%

Rune Magik is a cross between Dais'cin With death and Firebird's Thrust.



RUNE MAGIK • £4 DISK ONLY • PIPELINE SOFTWARE

Rune Magik is another Gilbert collect-em-up! This stars our stumpy hero, as in the previous game. This time, instead of being set in rooms, Rune Magik takes place over a maze of caves (much like those in Firebird's Thrust 2) which you wander around collecting objects. This game is much the same as Dais'cin with Death, though, with a larger playing area and therefore better value for money.

RATING: 70%

Pipeline Software also undertakes the publication of other homebrew games and utilities. If you have any of your own, then you could do a lot worse than drop Robin a line at the address at the foot of the page.

CLOAKER • A Swinbourne

Cloaker is a war game for one or two players. Your mission is to gain control of an alien planet by winning 5 sectors. If one-player mode is selected, the player plays against the CPC.

At the start of each sector, you are given 5000 credits, with which weapons and armour may be bought. The players' weapons are selected from the weapons menu, from which the degree of protection can also be chosen. A Gun represents an ordinary army; the Armour gives some protection from attack, and the Tank offers the protection of Armour, plus some fire-power.

After weapons have been selected, the sector screen displays a landscape of Alien squares and neutral squares. Taking turns with the other player, armies can be deployed into these neutral squares.

The actual warfare begins

C
TOR

after the initial set-up, with the aim to capture target squares before the enemy. If you decide to attack an alien square the screen will change to display the battle. This is where your army starts depleting!

The graphics in the games are pretty good, easily up to the standard of Laser Squad and, for anyone interested in the more specialised field of strategic wargames, the game is well worth a look.

There are more wargames in the series, but Cloaker is well thought out and full marks must go to Ms. Swinboune for the work put into creating it. If strategy is the name of YOUR game, then this is for you.

RATING: 70%

Angela Swinbourne's Cloaker challenges you to take control over a whole planet...phew!!



TOWN QUEST • £2.00 + DISK + SAE • Dune Programming

This BASIC adventure game was written by young programmer Danny Taylor, who is a big fan of adventure games and the inspiration for this one was derived from Bard's Tale, Miracle Warriors and Fighting Fantasy.

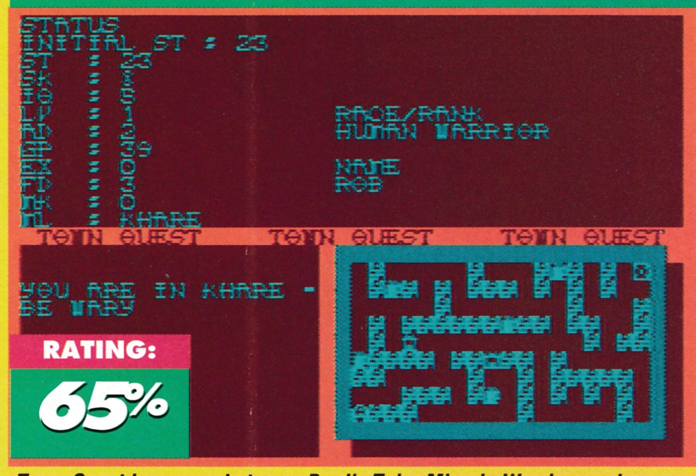
The storyline goes something like this: Many years ago, the land of Murdinia was a peaceful and beautiful country, inhabited by Humans, Elves, and Dwarves who lived in harmony and shared the land between them. One day, a young magician's apprentice was experimenting with magic while his master was away (why is it that apprentices always seem to do this?), when he came across an old dusty book, hidden in a chest full of ancient artifacts. He opened the book and all the pages were blank, except one. This single page contained a chant which was not labelled and was like nothing the young man had ever seen before. So, in his curiosity, he read it out loud to see what would happen. This proved to be a big mistake because, unknown to him, the magic chant had freed an evil warlock who had been banished forever into the bleak dimension of limbo...

You play the part of one of one hundred skilled warriors sent out into the wilderness by the resistance movement to kill the Evil Warlock. When Town Quest is run, a menu appears, in which the instructions, Credits, general information or play can be chosen.

Either Human, Elf or Dwarf can be chosen as the character of the warriors, each has its own strengths and weaknesses and the outcome of the game is somewhat dependent on the chosen character and whether you like fighting the various monsters. It is quite safe to say that Town Quest has more monsters in it than seen in any other game.

The main screen is divided into 3 windows. The first displays status as Skill, Stamina, IQ, Current Level, Attack damage, Gold, Experience, Food, Maze Level, and monsters killed. The second window is the responses menu, where information about the current situation is displayed. The third window shows the map, from which progress can be observed.

Town Quest is nicely presented and it is obvious that a great deal of time and care has gone into its creation. The only minus point is its lack of speed, but apart from that, a good game!



RATING: 65%

Town Quest is a cross between Bard's Tale, Miracle Warriors and Fighting Fantasy.

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PD REVIEWS

ALYSSA GDPD SOFTWARE – AND OTHERS!!

Alyssa - the game database (a database for games. Ed.) was written by Julian Cassin. "It is not Public Domain, but version 1.6 may be freely distributed by Amstrad users for their own personal use", says the introduction at the beginning of the help file.

This excellent utility falls into the catagory of "almost PD". It was designed for games players - collectors and cataloguers to efficiently organise and store information about their collections. It is 128k disk only as it uses the extra RAM for data storage. The copyright message gives the impression that the author likes Tiffany!

The main options available are displayed in the main menu. The EDIT sub-menu presents further options, including APPEND, which adds a new record to the database file; EDIT, which, erm...edits an existing record; BROWSE, to view records, without editing; SEARCH, which searches the whole database file and includes wildcard options; PACK deletes selected records from the database file; INVERSE inverts all TAGged and UNTAGGED files and last, but by no means least, is the NEW option, which clears the current database.

The FILE sub-menu allows you to CATalogue a disk, LOAD/SAVE/MERGE files, and also included is a COMPARE option, which compares two database lists! Disk drive support includes 3.5" accessing - even under ROMDOS!

The PRINT sub-menu, has options to print to screen, file or PRINTER, define the print mode and definition of start and stop record numbers.

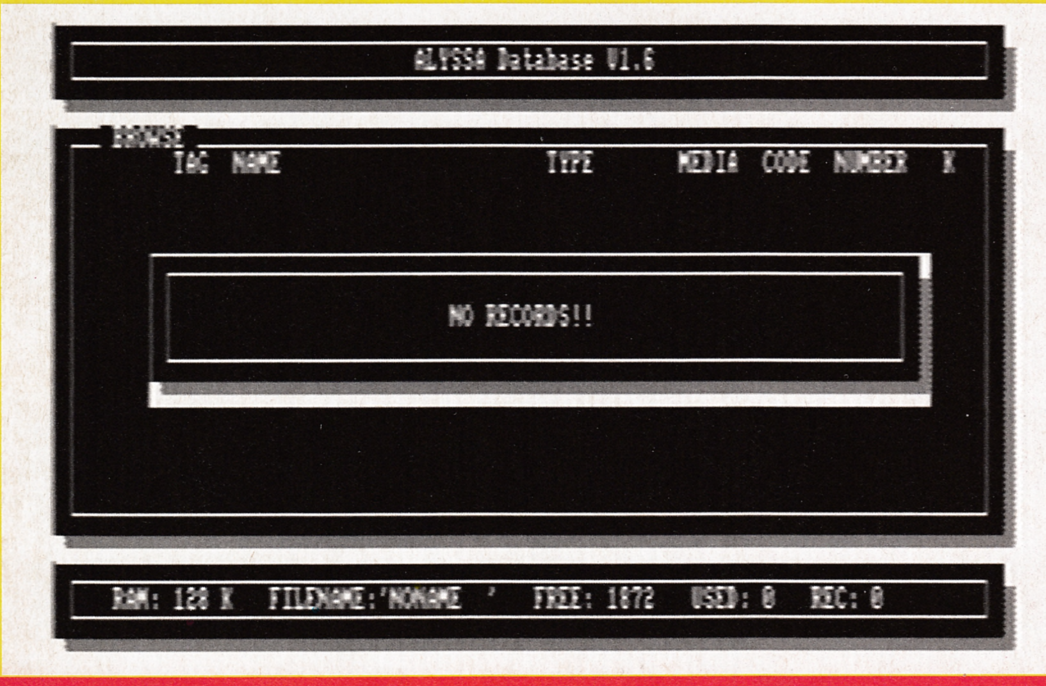
The SORT sub-menu hides a very powerful sorting routine, which is one of the fastest available. You can sort by SIZE, TYPE, MEDIA, NUMBER and NAME.

The XANY sub-menu comprises the kind of options and external support that makes this program so very good. From this menu it is possible to issue external ROM commands (RSX's), chain external subroutines, display the memory map and status info and display information about Alyssa.

There's nothing adverse I can say about this program. The quality of the programming is superb, the SORT routines are fast, and it's neatly presented. Definitely goes straight into the CPC Attack! top ten of PD software!

RATING: 93%

This PD database's speed and flexibility has to be seen to be believed!



GDPD were the library that donated this program to us. Run by Dave Lawson and Ged Layton, GDPD are rapidly expanding at the rate of roughly four per week and currently have around 50 selections. They can supply software on 3" or 3.5" disk, in normal or MS800 formats. Each side costs 35p, making them one of the cheapest PD libraries on the Amstrad scene.

NEWS

- Alan Scully, formally of Scull SL library has left the CPC Scene for good. Word has it that Scully has sold his Amstrad equipment, and departed to pastures new. Scull SL has been renamed Domain PD, and is being run by Graeme Chesser. The copying fee is £1.00 for 2 sides of a disk, and you no longer have to subscribe to the Scull disczine . Readers of Artificial Intelligence Fanzine can get 25p off Domain Orders.

- Two new libraries open this month. The first is Signal Software PD. SSPD can supply you with top quality PD software on either 3.5" or 3" disk, or even tape. The copying charge is £1.00 per side. The second is Gnasher PD, run by Matthew Parfitt who sent in a disk stuffed with programs, most of which he wrote himself.

- Robot PD have released PowerPage128, the 128k version of the best DTP program available. PP128 features a very fast zoom mode, no disk accessing, (due to extensive use of the expanded memory), RAM-based headline fonts and Pull-UP menus! All this and much much more.

- Artificial Intelligence - The A5 CPC Fanzine is a year old today. Published every other month, it contains 32 pages of the latest news, gossip and reviews. Tim Blackbond, editor of AI is renowned for his somewhat strange sense of humour and AI is full of it (humour that is!). It costs £1.00 plus an A5 SAE. If you send a disk with your order, AI will fill both sides with some rather nice exclusive PD programs. Tim asked us to point out the very important fact that each issue has a different coloured cover!

- Presto PD, run by Matt Gullam has re-organised his PD library. This was to get rid of some of the less useful programs, in order to provide a better quality of service. Spanning over 100 sides of PD software, the PD is available on 3 and 3.5" disk and costs 25 p per side. As well as running a PD library, Matt also edits a monthly fanzine, Presto News, dealing with all aspects of the CPC which can be obtained by sending 75p and an SAE.

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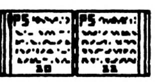
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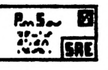
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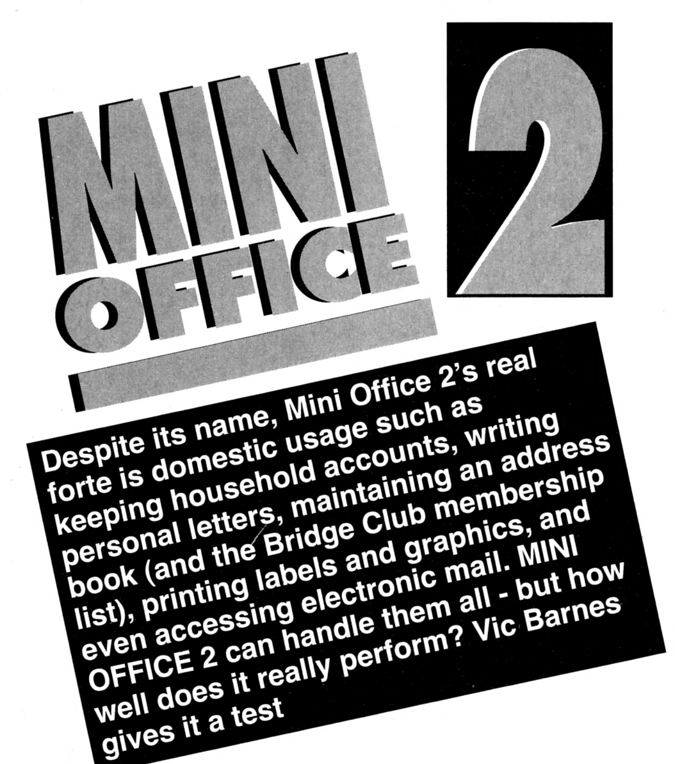
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1 WORD PROCESSOR • • •

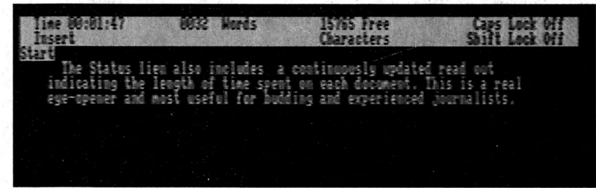
The WPmodule in Mini Office 2 is obviously not in the Brunword or Protext class, but will comfortably fulfil most domestic and small business requirements. Don't ask it to do anything really complex because it is pretty basic, though it does have more power than is at first apparent.

Most text handling features such as full justify, word-wrap, centring, spooling, cut and paste, and mail merge are available. You can even 'embed' various print effects in the document, but these must be used with extreme care. Underlining certain words and phrases proved to be the big problem.

Mini Office 2's system of embedded commands requires the use of the function key <f1> to prefix a decimal, ESC code. This effect must also be switched off with a similar code, both of which can be quite long, taking up a fair bit of space. These extra spaces show up on screen and can seriously effect formating (and printout) if not used with extreme caution.

Other features worth mentioning include the ability to change the monitor colour display. There isn't a combination you can't use, or try out. This feature is so good I now use one of those discovered in MINI OFFICE 2 for my Protext display!

The status line also includes a continuously updated read-out indicating the length of time spent on each document. This is a real eye-opener and most useful for budding, and experienced, journalists.



2 DATABASE • • • •

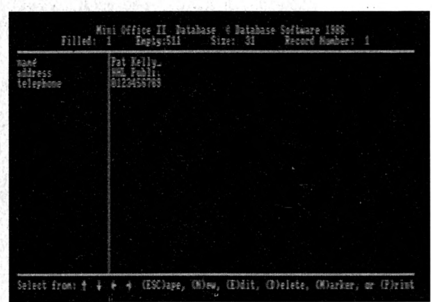
The database module is as good as many individual programs which have been marketed for the same price as the entire MINI OFFICE 2 package! Its only drawback is that it doesn't give much flexibility when printing the contents of a file.

Perhaps the most interesting feature of the database is its ability to carry out calculations. This enables the keeping of stock files, sales records, club subscriptions and even profit and loss accounts. The mathematical routines will also work out averages! Many 'full-blown' databases often allow only addition and subtraction. A simple, but remarkably effective marker system allows the selection of individual records, or groups of records.

The database and WP work together to allow simple mail merging, although this is not actually a module in itself.

Once again, the embedded commands are used for importing the appropriate fields, from the data file, into the WP test and much care is needed. Spaces should be left in the document for the imported information or text will be overwritten. This is not too much of a problem as you will mostly import names and addresses onto the top of the document, on lines of their own.

With intelligent use, the mail merge feature is a valuable bonus and will save an enormous amount of keyboard work.



Entering records could hardly be easier. There are 20 fields available for each record and a maximum of 250 records to a file. Five parameters must be filled in when entering data into each field of a record. These are: Alpha, which requires to know if data is alphabetic or numeric; Decimal - field contains numeric data to two decimal places; Date - this one is obvious; Integer - the field will contain only whole numbers; Form - the field's numeric data will be calculated according to the formula entered.

3 SPREADSHEET • • • •

I cannot imagine any small business, or individual user, requiring a more sophisticated spreadsheet than that included in MINI OFFICE 2. 'What if?' calculations are possible as well the obvious, instantly accessed 'profit and loss' account.

A generous matrix (grid) is allowed, but the exact size is set according to the type of information to be entered. One of the most natural formats is to enter the months of the year as columns (on the top line) and various debits and credits as lines (down the side), rather like a graph. Formulae can be entered in selected cells to give individual totals, gross and net totals, averages and VAT, etc.

Obviously, for printing purposes the nearer you can configure the grid to A4 format the better. If you have so many categories this is impossible, fear not, MINI OFFICE 2 allows you to select required sections for printing. This makes it possible for even a maximum-size spreadsheet to be printed on a series of single sheets.

```
Freespace=08998  Manual
Cell=A1                      Number
Contents:45.00

     A....... B....... C....... D.......
  1    45.00  e
  2
  3
  4
  5
  6
  7
  8
  9
```

Amending and entering information is quick and comprehensive with the use of 18 mnemonic 'hot keys'. These cover every input operation you're likely to need, such as (D)uplicate cell; (A)mend at cursor; (C)alculator; enter (S)tring; (O)pen cell; (L)ock cell, (U)pdate, etc, etc.

4 GRAPHICS • • •

Saving to a Graphics Data option in the spreadsheet, and printing it via the graphics module, is the main purpose for including this in the package.

Graphic printouts of such professional looking diagrams as pie charts, graphs, and bar and line charts are easy with MINI OFFICE 2. Mind you, it won't do much else, so don't junk that pencil and ruler just yet!

Mini Office 2 only makes provision for 9-pin dot matrix machines and has emulations for Epson FX850 and DMP-1 printers. You can print your data with 24-pin, all-singing, all-dancing, high-tech, super machines but your pie chart will be tall and skinny and line charts and bar charts will not be exactly as you would wish: they should be better.

There is one other option. According to the manual it should be possible to scale graphs. Although the manual doesn't explain very clearly how to do this, it is possible to juggle ratios and get an acceptable 24-pin printout of a pie chart.

To create diagrams, data must be entered from the spreadsheet into a special file. The Graphics module will then access this file and print the results. It's therefore important you stick rigidly to the parameters detailed.

TITLE	VALUE
Jan	12
Feb	34
Mar	23
April	12
May	21
June	67
July	70
	Total: 239

5 COMMUNICATIONS • • •

This module enables you to link your CPC with another computer, or hook up to MicroLink, or Telecom Gold and enjoy the benefits of electronic mail and other exciting services!

All this is possible if both computers share the same protocol. Luckily, you don't need to configure the CPC for this because MINI OFFICE 2's communication menu will stem the tears and provoke a smile. It does all the work while you sit back and wait to chat.

The easiest way you can reap this harvest is by owning a modem and an RS232C serial interface. However, if you only wish to communicate with Junior's Apple Mac a simple lead between the two will do the trick.

Mini Office 2 controls not only protocol, but also Buffer Options and Display Options. The former is worth learning thoroughly because it will save considerable time by making the most efficient use of the link and its memory configuration. There will also be a worthwhile saving on your telephone bill.

The Display Option controls how you receive data and the method of viewing, or printing. It also separates the screen into two halves - one half for displaying the data received and the second for transmission data. If the other computer does not echo back your transmission, selecting an Echo Option will display 'local echo' (your own data).



6 LABEL PRINTING • • • •

Essentially, this is for multiple printing of labels from addresses already contained in the MINI OFFICE 2 Database. Obviously, individual labels can also be printed.

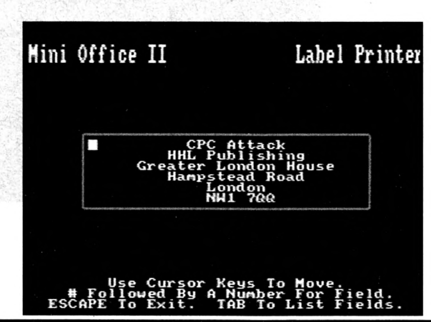
This program should solve most problems, but without tractor-feed labels, difficulty may be experienced.

Designing a label for style and content is a doddle: simply enter the database field you wish printed, one per line. Strangely, the mail merge inverse codes are not used, instead each field is preceded by the hash sign, eg. #01 prints field 1.

Printer control codes can also be entered and this will let you select font style, italics, bold and/or proportional etc. Your finished format should not exceed 38 characters wide by 18 deep when printed. You can elect to use a default format if this suits you better, but be careful because this selection results in as many fields as possible being printed on each label.

During the course of printing you are advised how many labels are left and how long this will take - quite useful if you've got a heavy date and 932 labels to go!

MINI OFFICE 2 will allow you to print from 1 to 7 labels across a sheet. You can also edit the data if you wish and even try a single label test before closing your eyes and going for broke!



RATING 88%

DOCUMENTATION: • • • •
EASE OF USE: • • • •
VERSATILITY: • • • •
VALUE FOR MONEY: • • • • •

POKES MAPS & TIPS

Yo! Welcome to the pleasure dome

GAMEOVER 1 & 2

Simon Peters of Somerset has sent in the GAMEOVER 1 & 2 passwords. GAMEOVER password is 10218 and GAMEOVER 2 is 84187.

VINDICATORS

The passwords to the other levels are OPPENHEIMER & ENOLAGAY

F-16 COMBAT PILOT

At the beginning of your game enter your callsign as MORTS TRESED (Desert storm backwards) and you will be able to do the final mission without completing the other missions first. Thanks to Adrian Smith for that one.

ENDURO RACER

Reduce you speed to 0 then hold down keys 0,1,4,5 and right arrow. Now you can go full speed without hitting anything.





TURRICAN

Adrian Smith lends a helping hand on Turrican. Press "H" to pause the game and hold down the keys V O N together to get 99 of everything and by pressing [ESC] you can skip a level.

3 WEEKS IN PARADISE

After you've died hold down the keys K A T H for infinite lives.

DELIVERANCE

Emma Hall has sent in a tip for infinite lives on this game, hold the keys I,L,I,K,E on the title screen.

GEMINI WING

Anyone stuck on this shoot'em'up ? well Robert Guy has supplied all the level passcodes for us.

LEVEL	PASSWORD
1	THESTART
2	EYEPLANT
3	WHATWALL
4	GOODNITE
5	SKULLDUG
6	BIGMOUTH
7	CREEPISH



MULTIFACE POKES

(T) FINAL FIGHT
1F31 xx xx Credits
1F36 xx xx Lives (Player 1)
1F37 xx xx Lives (Player 2)

(T) FLIMBO'S QUEST
7724 00 Infinite lives

(T) POSTMAN PAT
1923 00 Infinite lives

(T) SEYMOUR/ HOLLYWOOD
61C8 00 Infinite lives



(T) TIME SCANNER
1211 00 Infinite balls

(T) 720 DEGREES
9528 00 Infinite credits
80B8 00 Infinite Tickets

(T) RICK DANGEROUS 2
9F99 C3 Invulnerability

(T) NEBULUS
85EF 00 Infinite lives

(D) LOOPZ
2A6F A6 Infinite lives

(D) LASER SQUAD
4652 00 Infinite money

(T) RYGAR
2C38 A7 Infinite lives

(T) STAR WARS
4515 00 Infinite shields

(T) UNTOUCHABLES
0FD2 A7 Infinite time

(T) TROLL
5461 00 Infinite lives

(T) POPEYE 2
1767 00 Infinite bonus

(T) MYSTICAL
1E3F 00 Infinite lives

(T) R-TYPE
927B A7 Infinite credits

(T) RENEGADE 3
4DDF C9 Infinite lives

(T) TOMBSTONE
90C3 00 Extra energy

(T) VIGILANTE
5816 A7 Infinite lives

(T) PROHIBITION
0FB2 B7 Infinite hide time
0B69 B7 Infinite lives

CORRESPONDENCE



JACK THE NIPPER 2 [NV1]
Robert Guy of Sunderland wants some tips Jack the Nipper 2, "All I can do is make Tarzan fall off his rope" he says.

NAVY MOVES [NV2]
Peter Tuck needs a Multiface poke for for the tape version of Navy Moves.

HELTA SKELTA [NV3]
Lastly, Simon Cobbler wants the passwords for the last three paswords Helta Skelta.

Thanks to everyone who sent in your cheats to me this month, especially to DARREN CONNER who sent in his life's work on hacking with a multiface, so a prize goes to you. Please send me a wish list of games for your prize, but as always keep it to about £25. The Correspondence pages are being supported well but we need more MAPS.

TIPS

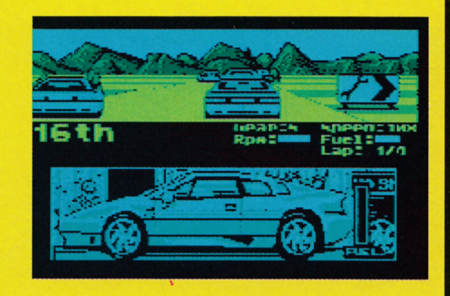
PRINCE OF PERSIA
On level one, instead of going to get the sword first go right to the first guard and with a well timed jump you can go straight through him, then on level two you will have your sword. I've tried and it works, nice one Adam Newton of Cheshire and Matthew Segneur who also found that one.

DOUBLE DRAGON 2
Matthew Jones of Northants. If you've got a group of bad guys in front of you hold your joystick in the "flying kick" position and they'll all be knocked over then every time they try and get back up they'll by knocked back down.

ALIENS
Matthew Segneur has sent a playing tip for Aliens which goes as follows : If one of your characters hangs around for too long or accidently shoots at nothing when the proximity meter is sounding, press a character selection key as quickly as possible and the alien will continue to parade around the room instead of attacking.

LOTUS ESPRIT TURBO CHALLENGE
Gremlin's Lotus Esprit Turbo Challenge has been well and truely beaten by David Carmichael, Brain Smith and John Willis. The race guide for tracks 10 - 32 (1-9 are already given to you.) below shows the dirrection each bend you come to, R= Right turn, L=Left turn and S/(R or L)= "S" bend starting with a left or right turn.

Track	
10	S/R,R,R,R,R,L,L,S/R,R
11	R,S/R,R,R,R,L,R
12	R,R,R,L,R,L,R,R,R
13	S/R,R,R,R,S/L,L,R,S/R,R
14	R,L,L,S/L,R,S/L,R
15	All left turns!
16	L,R,R,L,R,R,R
17	L,R,R,L,R,R,L,L,R,R
18	R,S/R,R,S/R,L,R,R,R,R,S/L,R
19	R,R,R,R,R,L
20	S/R,R,S/R,L,R,R,R,R,S/L,R
21	All rights turns!
22	L,R,S/R,L,R,R,R
23	R,L,L,R,R,R,R
24	S/R,S/R,L,L,L,R,L,R, L,L,L,R,R,R,R
25	R,S/L,S/L,R,R,R
26	R,L,R,L,R,R
27	R,L,R,R,R,R,L,R,R
28	L,R,R,L,L,L,S/R,L
29	R,L,R,R,L,R,R
30	R,L,R,R,L,L,R,R,L,R
31	R,R,L,R,R,L,L,R
32	L,L,S/L,R,R,L



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b) Name of account holder ------------------------------

c) Account number ☐☐☐☐☐☐☐☐

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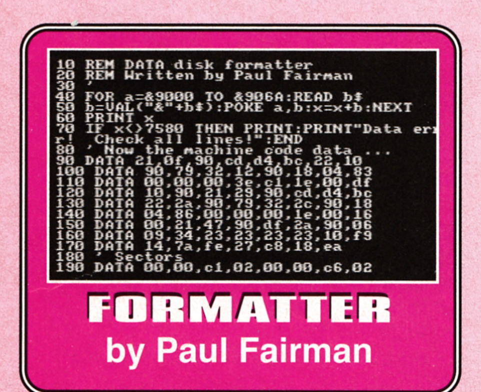
I will inform the bank in writing if I wish to cancel this instruction.

I understand that if any direct debit is paid which breaks the terms of this instruction, the bank will make a refund.

Signature ------------------------------ Date ------------------------------



This month, among our code-mungus collection of rebellious routine, we have a disk formatter, a CATalogue printing routine, a dump-tastic screen dump routine, an unusual simulator, and a game called Heart Attack!



FORMATTER
by Paul Fairman

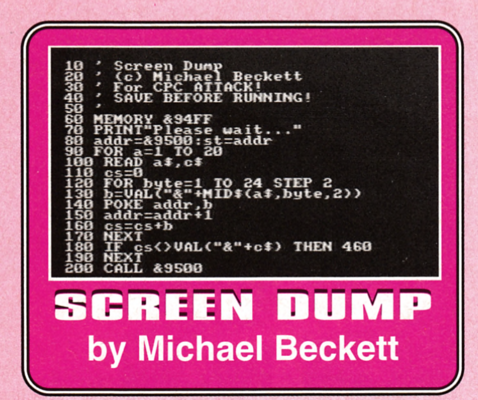
Why put up with slow CP/M, when this handy utility will format your disk in 30 seconds

This neat little program will format a disk-to-DATA format within about 30 seconds. Paul supplied it in Hexloader and assembly language, for those readers who possess DEVPAC or MAXAM.

```
10 REM DATA disk formatter
20 REM Written by Paul Fairman
30 '
40 FOR a=&9000 TO &906A:READ b$
50 b=VAL("&"+b$):POKEa,b:x=x+b:NEXT
60 PRINT x
70 IF x<>7580 THEN PRINT:PRINT"Data
     error!  Check all lines!":END
80 ' Now the machine code data ...
90 DATA 21,0f,90,cd,d4,bc,22,10
100 DATA 90,79,32,12,90,18,04,83
110 DATA 00,00,00,3e,c1,1e,00,df
120 DATA 10,90,21,29,90,cd,d4,bc
130 DATA 22,2a,90,79,32,2c,90,18
140 DATA 04,86,00,00,00,1e,00,16
150 DATA 00,21,47,90,df,2a,90,06
160 DATA 09,34,23,23,23,23,10,f9
170 DATA 14,7a,fe,27,c8,18,ea
180 ' Sectors
190 DATA 00,00,c1,02,00,00,c6,02
200 DATA 00,00,c2,02,00,00,c7,02
210 DATA 00,00,c3,02,00,00,c8,02
220 DATA 00,00,c4,02,00,00,c9,02
230 DATA 00,00,c5,02
240 CALL &BC0E,1:PRINT"Insert disk to
     format and press SPACE":CALL
     &BB18
250 CALL &9000:REM call m/c
```

For the very brave among you, here follows the source code. This code was written for Devpac assemblers, but can be typed into MAXAM by removing the ENT$ in line 20, and not using any line numbers

```
10   ORG #9000
20   ENT $
30                  ;disc formatter
40                  ;written on DEVPAC gena3
50   LD HL,COMMAND
                    ;pointer to command name
                    (ctrl+f)
60   CALL #BCD4
70   LD (FARCALL+0),HL
                    ;store far call address
80   LD A,C         ;ROM select address
90   LD (FARCALL+2),A
                    ;store ROM number
100  JR FOUND
110  COMMAND:
120  DEFB #03+&80
                    ;BIOS select format
130  FARCALL: DEFS 3
140
150  FOUND:
160  LD A,#C1
                    ;SELECT DATA FORMAT
170  LD E,0         ;REFERS TO DRIVE A
180  RST #18
                    ;EXECUTE COMMAND
                    WITH THE
190  DEFW FARCALL
                    ;FARCALL
200  LD HL,COMM              ;
210  CALL #BCD4              ;
220  LD (CALL+0),HL
230  LD A,C
240  LD (CALL+2),A
250  JR YES
260
270  COMM:   DEFB #06+&80
280  CALL:   DEFS 3
290          ;ABOVE SAME AS OTHER
             EXAMPLE BUT SETS
300          ;RST#18 TO "BIOS
             FORMAT TRACK"
310          ;INSTEAD OF "BIOS
             SELECT FORMAT"
320  YES:
330
340  LD E,0  ;DRIVE A TO FORMAT
350  LD D,0  ;TRACK TO BEGIN
             FORMATTING AT
360  LOOP:
370
380  LD HL,HEADER
             ;ADDRESS OF FORMAT
             INFORMATION
390  RST #18
             ;BIOS FORMAT TRACK
             CALL
400  DEFW CALL
             ;WITH POINTER TO
             COMMAND
410  LD B,9
420
430  TRACK:
440  INC (HL) ;INCREASE TRACK
450  INC HL
460  INC HL
470  INC HL
480  INC HL  ;MOVE POINTER
490  DJNZ TRACK
500  INC D   ;NEXT TRACK PLEASE
510  LD A,D  ;LOAD TRACK INTO A
520  CP 39   ;DOES IT = 39 (IE
             FINISHED)
530  RET Z   ;IF SO THEN STOP
540  JR LOOP
             ;CONTINUE UNTIL
             TRACK    39
550          ;BELOW GIVES
             SECTORS ETC
560  HEADER:
570  DEFB 0,0,#C1,2,0,0,#C6,2,0,0,#C2,2
580  DEFB 0,0,#C7,2,0,0,#C3,2,0,0,#C8,2
590  DEFB 0,0,#C4,2,0,0,#C9,2,0,0,#C5,2
```



Send your screen to your printer with this great little type-in.

This screendump program will dump the graphic contents of a CPC screen to any Epson compatible printer. To use it, type in the listing, SAVE it, and then RUN. To dump a screen to printer type **SCRDUMP,x** ;where x is the quality (1 is draft, 3 is high quality).

```
10 ' Screen Dump
20 ' (c) Michael Beckett
30 ' For CPC ATTACK!
40 ' SAVE BEFORE RUNNING!
50 '
60 MEMORY &94FF
70 PRINT"Please wait..."
80 addr=&9500:st=addr
90 FOR a=1 TO 20
100 READ a$,c$
110 cs=0
120 FOR byte=1 TO 24 STEP 2
130 b=VAL("&"+MID$(a$,byte,2))
140 POKE addr,b
150 addr=addr+1
160 cs=cs+b
170 NEXT
180 IF cs<>VAL("&"+c$) THEN 460
190 NEXT
200 CALL &9500
210 PRINT"To use, type ISCRDUMP,x"
220 PRINT"- where x=1 (draft) to 3 (high quality)"
230 PRINT"(Press SHIFT and @ to get a I)"
240 PRINT
250 NEW
260 DATA 21e795010995c3d1bc0e95c3,5F2
270 DATA 169553435244554dd000f53e,47C
280 DATA 0132e695f1fe01200bdd7e00,524
290 DATA e603b7280332e69521d495cd,5CF
300 DATA 6195218f01e53ae69547cd91,5E6
310 DATA 95cd6b9510f83e0acd2bbde1,648
320 DATA 06062b10fdcd09bbfefc280a,501
330 DATA 7cfeff20dc7dfefd20d721df, 7E4
340 DATA 957efeffc823cd2bbd18f6c5,783
350 DATA e53aeb95b7281621d995cd61,651
360 DATA 9521ec95017f027ecd2bbd23,50F
370 DATA 0b78b120f63e0dcd2bbde1c1,5EC
380 DATA c9c5e5af32eb95dd21ec9511,764
390 DATA 0000017f02c5d5e506060e00,31B
400 DATA d5e5c5cdf0bbb728023e01c1,6D8
410 DATA a9874fe1d12b10ec79e1d1c1,744
420 DATA dd7700dd23b7280332eb9513,4FB
430 DATA 0b78b120d0e1c1c90a1b3311,4F8
440 DATA ff1b2a047f02ff0c1b400a0a,343
450 DATA 0aff00000000000000000000,109
460 PRINT"Error in line";250+(a*10)
```

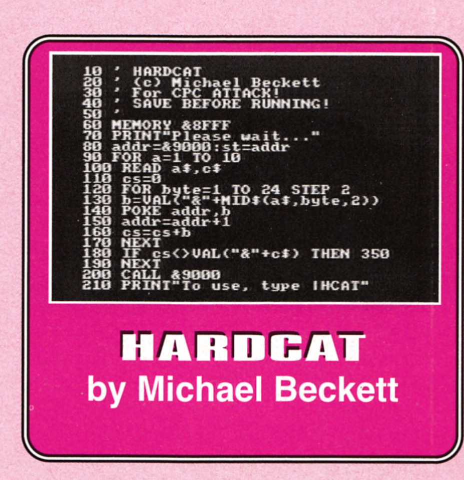


What's the difference between a Skoda and a porcupine? The (censored...Ed!)

It's every Skoda drivers nightmare: driving down the road, minding your own business, when suddenly you are faced with thousands of Relient Robin vans all jittering towards you at top speed (5 miles per hour?). Of course, you could just pull over and wait for the vans to pass, but that wouldn't make much of a game would it? Instructions: Guide the Skoda from left to right with the Z and \ keys

```
10 ' Skoda Simulator
20 ' (c) Michael Beckett
30 ' For CPC ATTACK!
40 ' SAVE BEFORE RUNNING!
50 '
60 DEFINT a-z
70 SYMBOL AFTER 32
80 symb!=HIMEM+1
90 GOSUB 850
100 '
110 MODE 1
120 INK 0,0:INK 1,26:INK 2,21
130 INK 3,10:BORDER 0:PEN 2
140 LOCATE 13,3:PRINT"SKODA SIMULATOR"
150 LOCATE 13,4:PRINT"——- —————-"
160 PEN 1
170 LOCATE 12,7:PRINT"By Michael Beckett"
180 LOCATE 9,23:PRINT"Press SPACE to start...."
190 PEN 3
200 LOCATE 4,12:PRINT"Use Z and \ to move left and right"
210 WHILE INKEY(47):WEND
220 '
230 CLS
240 a$="Distance in km "
250 PEN 3:PAPER 0
260 FOR a=1 TO 15
270 LOCATE 32,a+9
280 PRINT MID$(a$,a,1);SPC(2);CHR$(143)
290 NEXT
300 PLOT 542,254,1:DRAWR 0,-240
310 DRAWR 18,0:DRAWR 0,240
320 TAG
330 km=8
340 FOR a=252 TO 32 STEP -30
350 PLOT 560,a:DRAWR 6,0
360 PRINT km;
370 km=km-1
380 NEXT
390 TAGOFF
400 FOR a=1 TO 25:LOCATE 4,a:PRINT CHR$(133)
410 LOCATE 28,a:PRINT CHR$(138):NEXT
420 PEN 2
430 LOCATE 33,3:PRINT"SKODA"
440 LOCATE 31,4:PRINT"SIMULATOR"
450 '
460 a=0
470 CALL &8000,@a
480 IF a=1 THEN 670
490 '
500 CLS
510 a$="WELLDONE"
520 FOR a=1 TO 8
530 addr!=symb!+8*(ASC(MID$(a$,a,1))-32)
540 FOR b=0 TO 7
550 b$=BIN$(PEEK(addr!+b),8)
560 FOR c=1 TO 8
570 x=(((a*8)-6) AND 31)+c
580 y=(b+3)-10*(a>4)
590 SOUND 1,800-(x*y),3,7
600 PEN y/3 MOD 3+1
610 IF MID$(b$,c,1)="1" THEN LOCATE x+2,y:PRINT CHR$(143)
620 NEXT
630 NEXT
640 NEXT
650 x=200:GOTO 710
660 '
670 a$=" GAME OVER ":x=150:y=230:c=1:GOSUB 760
680 FOR a=1100 TO 1000 STEP -2:SOUND 1,a,1,7,,,30:NEXT
690 '
700 x=136
710 a$=" Press Space ":y=60:c=2:GOSUB 760
720 WHILE INKEY(47):WEND
730 GOTO 110
740 END
750 '
760 w=LEN(a$)*16+16
770 FOR a=y-36 TO y+2 STEP 2:PLOT x-2,a,0:DRAWR w+4,0:NEXT
780 PLOT x,y,c:DRAWR w,0:DRAWR 0,-32:DRAWR -w,0:DRAWR 0,32
790 TAG
800 MOVE x+8,y-10
810 PRINT a$;
820 TAGOFF
830 RETURN
840 '
850 PRINT"Please wait..."
860 MEMORY &7FFF
870 addr=&8000
880 FOR a=1 TO 53
890 READ a$,c$
900 cs=0
```

```
910 FOR byte=1 TO 20 STEP 2
920 b=VAL("&"+MID$(a$,byte,2))
930 POKE addr,b
940 addr=addr+1
950 cs=cs+b
960 NEXT
970 IF cs<>VAL("&"+c$) THEN 1010
980 NEXT
990 RETURN
1000 '
1010 PRINT"Error in line";1020+(a*10)
1020 '
1030 DATA 3DC0DD6601DD6E00E5CD,
53E
1040 DATA 1280E177233600C92100, 32D
1050 DATA C011648206C87D12137C,3A3
1060 DATA 1213CD26BC10F5214882,3C4
1070 DATA 060ECD238110FB2114C3,388
1080 DATA 224682AF323F823E5032, 34C
1090 DATA 4082CD0DBDED53428222,
47F
1100 DATA 44823E1E3241823E47CD, 369
1110 DATA 1EBBC486803E16CD1EBB,
49D
1120 DATA C48F803A3F82B7C03A41,
4C0
1130 DATA 82571EB6217581CDC880,
4D9
1140 DATA 214882060EE5C5CD9880,48E
1150 DATA C1E1232310F5CDFD80CD,
604
1160 DATA 19BD18C72141827EFE07,41C
1170 DATA C835C92141827EFE32C8,520
1180 DATA 34C956235E7BFEC73008,44C
1190 DATA E521CC81CDC880E13434,
5B1
1200 DATA 7EFEB4C05F2B563A4182,
4CD
1210 DATA 47057A90FE0530063E01, 2CE
1220 DATA 323F82C9CD2381210782, 3D7
1230 DATA E501648226006B29094E, 2DD
1240 DATA 234626006A09545DE17E, 312
1250 DATA 234E2332E480D50600ED, 3F2
1260 DATA A00C10FBD17AC6085730,
457
1270 DATA 087BC6505F7ACEC0570D,
464
1280 DATA 20E6C9214082357EB7C0,
4DC
1290 DATA 36502A46823600233600, 207
1300 DATA 2BCD26BC2246827CFEC7,
505
1310 DATA C07DFEC4C03E02323F82,
4F2
1320 DATA C9C5CD468179C62AD62A,
58B
1330 DATA FE2A30FAC60977237987,
4BB
1340 DATA FE503804D62818F8473E, 41D
1350 DATA 1E907723C1C9E5D5ED5B,
5D4
1360 DATA 42822A44820605CB1CCB,371
1370 DATA 15CB1ACB1310F60603D5,
3BC
1380 DATA ED5B4482B7ED52EBE110,
5E0
1390 DATA F4ED534282224482434C, 46F
1400 DATA D1E1C9051100100F8000, 330
1410 DATA 00740FE200004F0F2F00, 1F2
1420 DATA 005FFFAF00006E006700, 2E2
1430 DATA 004C002300007FFFEF00,2DC
1440 DATA 00270F4E0000470F2E00, 108
1450 DATA 00470F2E0000270F4E00, 108
1460 DATA 003FFFCF00004C002300, 27C
1470 DATA 004C002300003FFFCF00, 27C
1480 DATA 00070F0E0000610F6800, FC
1490 DATA 031300000000000071FF, 186
1500 DATA E8FFFFFFFFFFFFFFFFFF,
9DF
1510 DATA FFFFFFFFFFFFFFFFFF7F,
976
1520 DATA FFEF37FFCE470F2E8C00,502
1530 DATA 13CE0037AF0F5FBFFFDF,
4D2
1540 DATA 57FFAE11FF8800F60003, 495
1550 DATA 12000000000000000000, 12
```



HARDCAT
by Michael Beckett

Nothing to do with tough moggies - print your disk catalogue the easy way.

Here's a little utility that a lot of CPC owners have been begging for - no, not a Kim Basinger Simulator...come to think of it!...but this neat utility will dump the disk CATalogue to a printer.

It'll work on ANY format disk (including ROMDOS) and works by intercepting the screen print routine, redirecting it to the printer. If you want to print the CATalogue in condensed form (very handy!), then just type in the following line before running the program :-

PRINT#8,CHR$(15); (return>

To send the CATalogue to the printer, just type **IHCAT** and press **RETurn.**

```
10 ' HARDCAT
20 ' (c) Michael Beckett
30 ' For CPC ATTACK!
40 ' SAVE BEFORE RUNNING!
50 '
60 MEMORY &8FFF
70 PRINT"Please wait..."
80 addr=&9000:st=addr
90 FOR a=1 TO 10
100 READ a$,c$
110 cs=0
120 FOR byte=1 TO 24 STEP 2
130 b=VAL("&"+MID$(a$,byte,2))
140 POKE addr,b
150 addr=addr+1
160 cs=cs+b
170 NEXT
180 IF cs<>VAL("&"+c$) THEN 350
190 NEXT
200 CALL &9000
210 PRINT"To use, type IHCAT"
220 PRINT"(Press SHIFT and @ to get
al)"
230 PRINT
240 NEW
250 DATA 217590010990c3d1bc7090c3,
5D3
260 DATA 0e90217d98010000227990ed,
3ED
270 DATA 437b903a5abb2a5bbbf5e53e,
5F5
280 DATA c3325abb215e90225bbb117d,
4DF
290 DATA 90cd9bbce1225bbbf1325abb,
705
300 DATA 217d98ed4b7b900bcd09bbfe,
613
310 DATA fcc8cd2ebd38f57ecd31bd23,
705
320 DATA 0b78b120eb3e0ac331bde52a,
547
330 DATA 799077232279902a7b902322,
448
340 DATA 7b90e1c9484341d400000000,
455
350 PRINT"Error in line";240+(a*10)
```



HEART ATTACK
by David Hall

Can you shoot the hearts in time? Only your joystick knows for sure.

David Hall, from Manchester, has come up trumps with this great little game. The idea of Heart Attack is to shoot as many hearts as you can in the alloted time! Instructions: Joystick up/down controls the gun, fire, erm...fires it!

```
10 ' HEART ATTACK by David Hall
20 ' (c) Spring 1990
30 '
40 ' * Set up display *
50 INK 0,0:BORDER 0:INK 5,15:MODE 0
60 INK 15,0,6:INK 14,6,26:INK 13,26,6
70 SPEED INK 15,15:PAPER
        0:CLS:x=8:y=6
80 a=32:c=2:INK 9,0:b=624:d=6:e=10
90 GOSUB
        420:x=28:y=48:a=44:b=200:c=11
100 d=3:e=5:GOSUB 420:FOR m=1 TO
        6:x=188+64*m
110 b=40:GOSUB
        420:NEXT:x=8:y=104:a=290
120 b=624:c=1:d=12:e=0:GOSUB
        420:x=16
130 PEN 4:PAPER 10:LOCATE
        4,24:PRINT
        TAB(4)"Wait!":GOSUB 480
140 y=108:a=282:b=60:c=9:e=9:d=9
150 GOSUB 420:PAPER 5:PEN
        4:LOCATE 2,21
160 PLOT 16,388,0:PRINT
```

```
"Score:":PAPER 0
170 c=3:a$="HeArT"+CHR$(9)+"AtTaCk"
180 n=1500:LOCATE 5,1:FOR t=1 TO 12
190 PEN c:c=c+1:IF c=7 THEN c=3
200 PRINT MID$(a$,t,1);:NEXT:PAPER 10
210 PEN 4:LOCATE 4,24:PRINT "FIRE to begin!"
220 GOSUB 570:PAPER 10
230 LOCATE 2,24:PRINT SPACE$(18);
240 PEN 3:LOCATE 4,24:PRINT "Ready";
250 SOUND 1,98:SOUND 2,99:FOR t=1 TO n
260 NEXT:PEN 4:PRINT " Aim ";:SOUND 1,68
270 SOUND 2,69:FOR t=1 TO n:NEXT:PEN 6
280 PRINT "Fire!":SOUND 1,38:PAPER 0
290 ' * Start Machine Code *
300 LOCATE 1,1:CALL 10000:PAPER 10
310 ' * Game Over *
320 LOCATE 2,24:PRINT SPACE$(18)
330 PAPER 0:PEN 13:LOCATE 4,7
340 PRINT "Clint Eastwood":PEN 14
350 LOCATE 5,11:PRINT "you ain't !!"
360 FOR t=10 TO 100:SOUND 1,t,2:NEXT
370 i$=INKEY$:IF i$<>"" THEN 370
380 CALL &BB18:PLOT 12,108,0
390 FOR t=1 TO 139:DRAWR 612,0
400 MOVER-612,2:NEXT:PEN 4:GOTO 140
410 ' * Box drawing routine *
420 MOVE x,y:FOR t=1 TO 2:DRAWR0,a,c
430 DRAWR b,0:DRAWR 0,-a,d:DRAWR -b,0
440 MOVER -4,2:NEXT:MOVER 12,0,e
450 FOR t=1 TO a/2-2:DRAWR b-12,0
460 MOVER -b+12,2:NEXT:RETURN
470 ' * Read data *
480 l=32000:FOR p=1 TO 2:READ a$
490 FOR t=1 TO 30 STEP 2
500 POKE l,VAL("&"+MID$(a$,t,2)):l=l+1:NEXT:NEXT
510 l=10000:FOR p=1 TO 74:y=0:READ a$,chk
520 FOR t=1 TO 24 STEP 2
530 s=VAL("&"+MID$(a$,t,2)):POKE l,s:y=y+s
540 l=l+1:NEXT:IF chk<>y THEN PRINT "Error in line";640+p*10:END
550 NEXT:RETURN
560 ' * Instructions *
570 WINDOW 2,19,3,18
580 PEN 3:PAPER 0:LOCATE 1,3:PEN 3:PRINT " Shoot as many of the hearts as you can (Game ends if you miss one)!"
590 PEN 4:PRINT:PRINT " You get 3 points    per heart"
600 PEN 10:PRINT:PRINT "  Use a joystick   (up,down + fire)"
610 WHILE INKEY$<>"":WEND:WHILE INKEY(76):WEND:CLS:WINDOW 1,20,1,25:RETURN
620 ' * Machine Code & Graphics *
630 DATA0100002003000f0300000100006400
640 DATA 000f050000010000c800000f050000
650 DATA CD3927AF325C4E32484E3234,998
660 DATA4E2132C2222A4ECD7327CDC1,1266
670 DATA 27CD3F2806640010FD3A5C4E,950
680 DATA FE1720EBC921204E06063630,1002
690 DATA 2310FB3E04CD90BB3E05CD96,1326
700 DATA BB211509CD75BB21204E0606,914
710 DATA7ECD5ABB3E09CD5ABB2310F4,1456
720 DATA C921254E347EFE3A20DF3630,1196
730 DATA 2B18F53E49CD1EBB20173E48,1058
740 DATA CD1EBB28272A2A4ECD29BC7E,1223
750 DATA FEC3201C222A4E18172A2A4E,872
760 DATA 0613CD26BC10FB7EFEC32008,1338
770 DATA 2A2A4ECD26BC18E42A2A4E11,1024
780 DATA 27290E12E506081A77231310,570
790 DATA FAE1CD26BC0D20F0C93A344E,1580
800 DATA FE0020233E4CCD1EBBC8CD0D,1299
810 DATA 292A2A4ECD26BCCD26BC1108,1090
820 DATA 001922364E3E0132344E3235,537
830 DATA 4E18203A354E3C32354EFE43,885
840 DATA 282B2A364E2322364E232306,534
850 DATA 047EFE002024CD26BC10F611,1162
860 DATA B7293E0332B2272A364E0E04,748
870 DATA CDB0273E0832B227C9AF3234,1235
880 DATA 4E11872A18E4CD2128CD0129,1049
890 DATA CD6527CD6527CD65273E0332,1150
900 DATA 4B4EC93A484EFE01284B3C32,1042
910 DATA 484E324B4E324D4EED5F473E,1023
920 DATA 143CFE4B28F910F95FED5F47,1461
930 DATA 3E1A3CFE9628F910F9472100,1210
940 DATA C0CD26BC10FB1600190E1622,1007
950 DATA 524E06087EFE0020CF2310F8,1092
960 DATA 2A524ECD26BC0D20EA22494E,1097
970 DATA C93A4B4EFE0120183A4D4EFE,1190
980 DATA 1720083C324B4E32664EC9C6,955
990 DATA 02324D4ED6021819FE032804,773
1000 DATA FE1720263A4D4EFE00200A32,906
1010 DATA 484E3A4B4E325C4EC92A494E,975
1020 DATA 4F47CD29BC10FB11D729CDB0,1505
1030 DATA 27214D4E35C93A664E3C3266,931
1040 DATA 4EFE8220063E17324B4EC92A,1031
1050 DATA 494E0616CD29BC10FB11D729,1153
1060 DATA 0E16C3B027210A7DCDAABC21,1210
1070 DATA 147DC3AABC3E2032037D3E0F,1047
1080 DATA F521037D3532067D21007DCD,1003
1090 DATA AABCF13D20EEC9C3C3C3C3C3,2106
1100 DATA C3C3C3C3C3C3C3C3C3616186,2083
1110 DATA 0C0C0C0C0C24240C0F0F0F0F,204
1120 DATA 0F25340D0F0F0F0F0F25340D,294
1130 DATA 0F0F0F0F0F25340D1E0F0F0F,252
1140 DATA 0F25340D2D0D3C3C3C34340D,472
1150 DATA 2D0D2D87C361610D2D0D6987,938
1160 DATA C3C3C30D2D0D2D4BC3C3C30D,1374
1170 DATA 2D0D69C3C3C3C30D2D0D69C3,1314
1180 DATA C3C3C30D2D0D69C3C3C3C30D,1554
1190 DATA 0E0F69C3C3C3C31C0F1E69C3,1287
1200 DATA C3C3C3963C3CC3C3C3C3C3C3,2025
1210 DATA C3C3C3C3C3C3C30050A000B0,1781
1220 DATA F000F0CC0044880000000000,888
1230 DATA 000000000000000000000000,0
1240 DATA 000000000000000000000000,0
1250 DATA FFFF0000FFFF0055BF6EAA55,1661
1260 DATA 9DDDAA556EF388447BCCAAFF,1942
1270 DATA 7BCCDDEE64CCFFBFD9CCCC3F,2224
1280 DATA E6CCDDBFE6CCCCF3CCCCDDBF,2547
1290 DATA E6CCCCCCCCCCDDBFE6CCCCCC,2504
1300 DATA CCCCDDEEE6CCCCCCCCCDDEE,2576
1310 DATA CCCCCCCCCCCCDDEECCCCCCCC,2499
1320 DATA CCCCDD55CCCCCCCCCCCCAA55,2193
1330 DATA CCCCCCCCCCCCAA55CCCCCCCC,2295
1340 DATA CCCCAA00EECCCCCCCCCDD0000,1853
1350 DATA EECCCCCCCCDD000055CCCCCC,1972
1360 DATA CCAA000055CCCCCCCCAA0000,1445
1370 DATA 00EECCCCDD0000000055EEDD,1411
1380 DATA AA000000000055AA00000000,425
```





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Please DO NOT PHONE as we are busy bunnies

In this month's Q&A, Rob Scott answers your queries, offers advice and reviews products

APPLICATIONS Q&A

Q

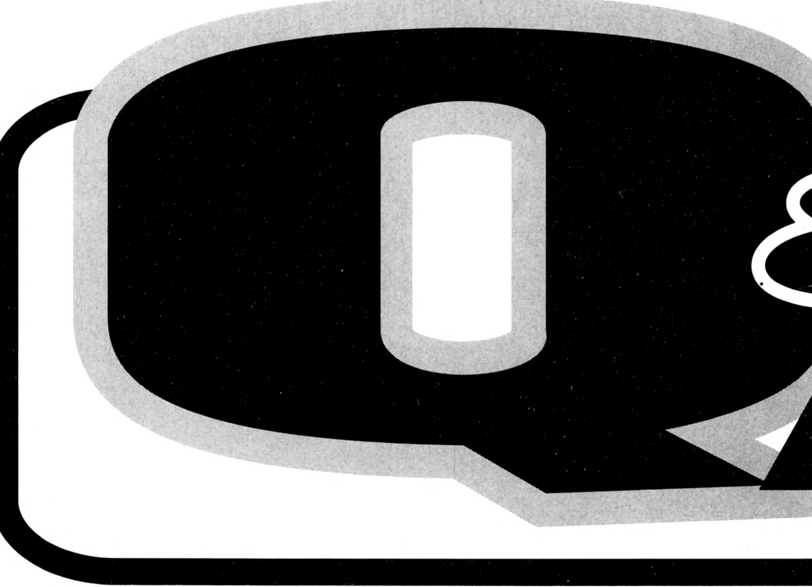
I have bought an Amstrad CPC6128+ and I would like to know a bit more about the 3.5" disk drive that is available for the 6128+:
1 - Do the disks that are used in the drive store 800k, or are they a special kind?
2 - What is MS800?
3 - If I bought a 3.5" disk drive, would I be able to get games, word processing packages and educational software on 3.5" disk, and if so would they be cheaper or more expensive?
4 - What are RAMDOS and ROMDOS, what do they do, and what is the difference between them.
5 - What is the best word processor available for my computer?
6 - Would I be able to type in a 10,000 word essay?
7 - I have Mini Office 2, and when I write maybe ten or so pages I have to save them, because at the top of the screen it says "overwrite". Why is this?
Please help me with my questions.

Patrick Danaghy, Listress

A

Whew, okay, to start at the beginning.....

1 - The disks that are used in a 3.5" disk drive are the industry standard 720k disks, as used by PCs all over the world, so are available just about everywhere.
2 - MS800 is a 3.5" disk operating system marketed by GVL Microform, and various other companies. It enables you to store 396k per side of a 3.5" disk, so you need a disk drive with a side switch to use it. A better alternative is ROMDOS, which is available as a cartridge or a ROM to plug into a ROMboard, which will give you up to 796K and 256 directory entries on a 3.5" disk, WITHOUT a messy side switch!
3 - No games software house produces software on 3.5" disk. The main reason for this is that virtually all CPC games are heavily protected, and wouldn't run from a 3.5" disk drive B anyway. Some smaller companies produce software on 3.5", and most P.D libraries will supply in either AMSDOS, MS800 or ROMDOS formats.
4 - RAMDOS is a disk operating system in a similar vein to MS800, except that it will store 796k per disk, WITHOUT needing a side switch. ROMDOS is the ROM version of RAMDOS.
5 - Hmm, the best word processor available for what you want is either Protext, available from Arnor, or a public domain CP/M Word processor called VDE. VDE has the advantage of being able to handle larger documents, but is nowhere near as user friendly. Protext has great speed and is so easy to use a child of six could operate it!
6 - The limit of words that can be entered depends on the length of each word - obviously. About 8000 words can be typed into PROTEXT on ROM. VDE will handle much larger documents, almost double the length of Protext. Protext on ROM has capacity for 39,000 characters, while the disk version can store a maximum of about 22,000. VDE can handle larger documents over 60,000 characters.
7 - I think you are getting a bit confused with the exact meaning of the word "overwrite". It in fact refers to the typing mode being used.
Overwrite means that if you move the cursor over an already typed word, and type in more characters the typed in characters will replace the already typed ones. The opposite to overwrite is "insert", in which the typed-in characters are inserted to the left of the cursor, and push the previously typed in words to the right. It has nothing to do with available document memory, although Mini Office 2 is too limited for any decent use. VDE comes highly recommended, although PROTEXT is easier to use. You pays yer money and takes yer choice. And why not?



Q

I received the ACU assembler a couple of weeks ago and after trying a few small programs, I tried typing in the demo in the June Issue (The scrollie!). The first thing I noticed was that the demo was stored at &8000 onwards, which happens to be where the assembler code starts. Then I tried to locate it at &7000, only to find that it does not support the command DEFM, which on some assemblers appears to be DEF$. When I got my next issue I tried the raster demo, and located it at &7000 rather than &8000. It didn't seem to mind being located there, but I got an "invalid number" error on the line "RLOOP: ld a,(ix)"
Can you please tell me if these errors should occur and if they are if there is a way to overcome them.

Philip Light, Horsham

A

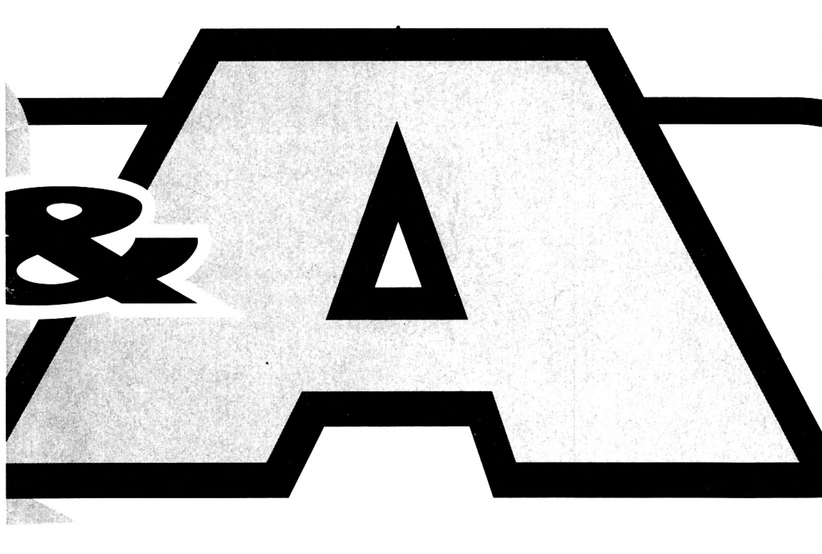
Ahem...firstly, the demo listing for the rasters was incorrect, because along with the missing raster colour table, the DEFW count was incorrect.
Also the I suspect that the ACU assembler is not the best example of a decent assembler, although not having seen it, I couldn't say for sure. If you are really serious about learning machine code, you will need an assembler like MAXAM by ARNOR, which as well as being the standard in assemblers, is also very flexible. Arnor can be contacted on (0733) 68909.

PROGRAMMING Q&A

Q

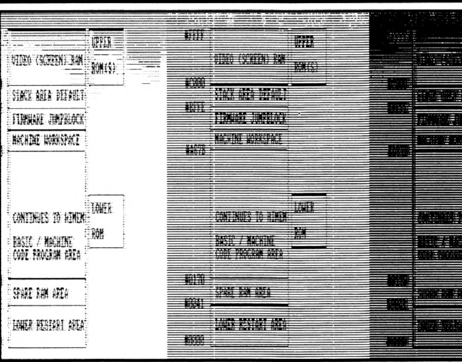
A few months ago I bought an Amstrad 64k Microcomputer. I have read the manual that came with it, it was helpful in as much as it got me started, but I still don't know so many things. Thus, may I put the three following questions to you :-
1 - What are pokes. In the manual it states, and I quote "Provides direct access to the computers memory and loads the (integer expression) in the range 0-255 directly into the address stated. Not a command to be used by the unwary." That doesn't really help me at all.
2 - I have often seen the CALL sign in some programs. Could you tell me what it is and what it does?
3 -According to what I have heard, all computers have a memory. My CPC has 64K of memory can you explain what these means?

Nora Lees, Birmingham



A

A "POKE" can mean one of two things. The first meaning of it is a program written for a game that provides the user with infinite lives or time etc. The second term, which is the one that you are interested in, is a bit more complicated. So this explanation will cover the answers for questions 1 & 3. A 64k computer's memory is made up of 65535 memory locations. To help you understand this better I have done a memory map of the Amstrad CPC series of computers



Each memory location can hold a number between 0 and #ff. In a CPC464, and also a CPC6128 (main memory). 64k memory actually means 65536 memory locations. That is because a "K" of memory is in fact 1024 bytes (or memory locations), and 1024 times 64 is 65536. For instance the Video (screen) memory starts at &c000. If you wanted to place a dot on the screen, try typing POKE &C000,&FF < return >. You have just programmed the Screen memory directly. It is not advisable to go around poking the memory indiscriminately, otherwise you could crash the computer. It is not important to know HOW to program these memory locations. If you are programming in BASIC, which is the Amstrad beginners, programming language, then you could type in a program of up to 39000 characters long, and still have enough memory left over for some machine code. Basically, it would take a beginner some time to use up 39k of BASIC memory, so you don't have to worry about running out or anything like that! The CALL command is used to access machine code routines from BASIC. You can do things using CALL commands that would take longer to do in BASIC. For instance the following commands can be used in your own programs.

```
CALL 0
:reset the CPC!
CALL &BB00
:reset the keyboard manager
CALL &BB03
:clear the keyboard buffer
CALL &BB18
:wait for a key to be pressed
CALL &BC02                :reset the screen to default inks
CALL &BD19
:wait for frame flyback (same as FRAME on
:6128
CALL &BD37
:reset the CPC to tape mode!
```

and that's only a few of the many CALLS available to the BASIC programmer! If you are really interested in discovering what lies inside your CPC, then pick up a copy of The PRINT OUT firmware guide from Thomas Defoè, 8 Maze Green Road, Bishops Stortford, Herts, CM23 2PJ. It costs £4.00.

Q

What is the difference between LEFT$, RIGHT$ and MID$. As far as I can see you can use MID$ to do exactly the same job, as LEFT$ and RIGHT$. There doesn't seem to be any point to having the extra commands.

Greg Pullar, Newcastle

A

For all intents and purposes MID$ can be used instead of LEFT$ and RIGHT$. I can't think why the Amstrad should need the other two, maybe they were put in to retain compatibility with other BASICs that didn't use MID$. Not, perhaps, as useless as it may at first seem.

Q

How do I do a FOR...NEXT loop in machine code . I need to be able to do something like FOR a=0 to 200:print "Hello":NEXT a. I have tried everything I can think of, but I am not exactly a machine code expert. Please help.

John Fellows, Wigan

A

Okay, counting in machine code is DEAD easy! The following routine will do exactly what you require.

```
        xor a
    ;set counter to zero
.count  push af
    ;preserve AF register (used
    for counter)
        ld hl,string
    ;address of text to print
        call print
    ;call routine to print string
        pop af
    ;get counter back again
        inc a
    ;counter = counter +1
        cp 200
    ;is it 200?
        ret z
    ;yes, then return
        jp count
    ;otherwise back round for
    ..next loop
.print  ld a,(hl)
    ;get the next character in the
    string
        or a
    ;is it zero? (end of text
    marker)
        ret z
    ;return if end of text marker
    found
        call &bb5a
    ;print the character in A
    register
        inc hl
    ;get the next character in
    string
        jr print
    ;and back round loop

.string db"Hello...",&00
```

Q

I have tried typing in the listing in the Demo Time column in issue 3 and as soon as I try to run any of the demo, all I get is a SYNTAX ERROR IN 10 message. Am I doing something wrong? Is there something blindingly obvious that I'm missing out on here?

James Markham, Hove

A

Hmmm...you sound like you have a severe case of

misunderstanditis here. The listings printed for the demo column are in fact assembler listings, and must be typed into a good assembler, such as MAXAM in order for them to work.

PROGRAMMING Q&A [contd]

Q

I am writing a BASIC printer dump routine, designed to work in all three screen modes. I am having problems with discovering the current mode, which I need to find out before the screen is printed. Is it possible from BASIC, and if so please, please show me how.

Richard Davis, Swansea

A

It's not really possible from BASIC as such. You will need to type in the short machine code program below. MERGE it into your BASIC program. When you need to find the screen mode, use a GOSUB 99999, to access the routine. The screen mode will be returned in the variable "scmode" The program works by using the SCR_GET_MODE firmware command, which gets the current screen mode, places it into the A register, and the routine then POKEs it into &BF07.

```
10 FOR a=&bf00 TO &bf07
20 READ b$:POKE
a,VAL("&"+b$):NEXT
30 CALL
&BF00:scmode=PEEK(&bf07)
40 RETURN
50 DATA
CD,11,BC,32,07,BF,C9,00
```

Q

I have been learning machine code for about 2 months now, and have written a small routine, that copies the screen RAM to and from &4000 to &c000. The only trouble is, it is quite slow compared to some I have seen. Can you tell me why, and possibly advise me of a better (faster) way to do it?

```
.movup
ld hl,&4000
ld de,&c000
ld bc,&4000
.move
ld a,(hl)
ld (de),a
inc hl
inc de
dec bc
ld a,b
or c
jr nz,move
ret
.movdn
ld hl,&c000
ld de,&4000
ld bc,&4000
jp move
```

David Castale, Richmond

A

Believe it or not, the CPC already has built in commands to copy area of memory, many, many times faster than the above routine ever will. The LDIR command takes 3 parameters:

HL points to the data source address
DE points to the data destination address
BC points to the length of the data to be copied

So, your routine can actually be rewritten as :-

```
.moveup
ld hl,&4000
ld de,&c000
ld bc,&4000
.move
ldir
ret
movedn
ld hl,&c000
ld de,&4000
ld bc,&4000
jp move
```

Q

Where can I get an EPROM programmer from? What ones are the best, and how much do they cost?

Simon Davis, Cheshire

A

You don't have much choice on the EPROM programmer front I'm afraid. The only one currently available is the JM one, available from AVATAR, who can be contacted on 0442 251705, and costs £30.00 including P&P.

Q

I am working on a program that relies on CATaloguing a disk in order to determine the format of the disk in drive A. What I don't want is the CATalogue to be displayed. Is there any way I can do this, without resorting to complicated machine code programming.

Phil Tucker, Salisbury

A

The most satisfactory method is to POKE the firmware print routine with a return instruction. Put the following subroutines at the end of your program. To disable the CATalogue printing use GOSUB 10000. To re-enable CATalogue printing use GOSUB 10040

```
10000 REM disable CATalogue
printing to screen
10010
ret=&c9:norm=&cf:prchar=&bb6
a
10020 POKE prchar,ret
10030 RETURN
10040 REM enable CATalogue
printing to screen
10040 POKE prchat,norm
10050 RETURN
```

TECHNICAL Q&A

Q

I have a Multiface 2 backup device and when I press the red button the machine just hangs. It only happens sometimes and is very annoying because I have to physically turn my machine off, wait a while and then switch it back on again. Is this a fault in my Multiface, or is my CPC getting a bit old?

Kevin James, Oundle

A

You'll be pleased to know that there's nothing wrong with either your CPC OR your Multiface 2. The problem tends to lie with power up surges and other related interference. A Multiface is a very powerful piece of hardware, but it gets a bit confused sometimes! The reason seems to be that the RAM inside it gets corrupted and the vectors, which tell it where to pass control to when the RED button is pushed, sometimes lose their information. To overcome this, if you hold down the SPACE bar while pressing the RED button, this will reset it to its default state and all will be fine. Failing that, try cleaning the good 'ol edge connectors.

Q

I know it may sound stupid, but what is a ROM and if I buy one, where do I put it in my CPC? Are there any spare slots inside or something?

David Knaw, Luton

A

A ROM is a chip that can be used to store programs, sort of like a solid state disk. Each chip can store either 8 or 16k Bytes depending on its type. The great things about EPROMS is that they take very little space in memory and are always ready to use. Your CPC even uses EPROMS to store the operating systems for BASIC and AMSDOS and, in theory, it is possible to attach up to 252 external ROMs to a CPC, although the Power Supply would probably die before you even reached half that figure. To use EPROMS, you will need a ROMBOARD, which is a device that plugs into the Expansion port of your CPC. These cost around £30.00 and generally have 8 sockets, although you can't use socket zero or socket seven for putting normal Eproms into.

Q

I have a CPC 6128 machine, and want to add a tape player to it. Do I need a special one, and what lead do I use to connect it to my computer?

Dave Walsh, Humberside

A

The CPC 6128 can use any fairly good quality mono tape recorder, preferably with a tape counter for convenience. The lead you require is a 5pin DIN to 2.5mm and 2 x 3.5mm jack plugs. The same lead was used for the BBC micros, so ask for

CLASSIFIEDS

FOR SALE

Amstrad 6128+ with monitor. 70 games and master disks with manual. £400 ono. Phone Stephen on 0443 833100 after 6.00pm.

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WANTED

AMSTRAD GX4000 GAMES, Especially 2 player, PANG,TENNIS etc, anything considered. Cash waiting. May consider complete outfit with games. TEL: 0638 666090 evenings.

WANTED information on Interfacing Manta Printer with 6128. Connector Cable is Dual Pin (Printer) to single (computer) (both stereo audio). Anyone have connection details or driver programme? Tel 051 334 8930

SWAPS

Will swap Man United and Man United Europe for Final Fight or Kick Off 2, or Lotus Esprit or F16 Combat Pilot. Phone 0524 844748. After 5pm

Will swap Bart Simpson VS Space Mutants for Bepton Must be on tape. Phone Michael on 0389 32875 or send a SAE to Michael Craig, 612 Muir Road, Dumbarton, Scotland. G82 3DJ

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TECHNICAL Q&A [Contd]

one of them and you won't go wrong.

Q
Can you, or perhaps a reader, help me with a circuit diagram to enable the RGB output to be converted to composite video? As with my own, most VCRs will not accept RGB signals and, as I do NOT wish to use the MP2 modulator, I will need to convert the signal to composite myself.

R.E Jones, Kent

A
The gadget you require is called "The VideoMaster", available from Campursoft.
This widget will do exactly what you need to do, and costs around £35.00.

Q
I have had an Amstrad CPC6128 for 5 years now and, over that time, I have been building up my knowledge of computers from scratch to now understanding BASIC. I use programs such as Advanced Art Studio, Stop Press and Extra Extra and Protext. I also own a number of games. Recently, from reading the Addon-guide, I discovered that a colour modulator is available and, as I don't know anything about them, I would be very grateful if you could enlighten me.

James Hickey, Preston

A
The MP series of modulators, from Amstrad, are no longer available. This is by no means a shame as they were complete and utter crap. The screen was un-viewable in anything but MODE 0 and they had a tendency to get rather hot. The nearest thing you'll get to the MP modulators nowadays is the VideoMaster. See above letter from RE Jones, and associated reply.

Q
I have a CPC 6128, a Multiface 2 and a DK'Tronics speech synthesiser, which I used with a 464. Is it possible to connect the synthesiser using a through connector on the Multiface and will it be compatible with my 6128?

C.A.Grocott, Salford

A
The only difference between the 464 & 6128 speech synthesiser is the casing:
the 6128 has an additional hole for the printer cable, should you have one. Therefore, you won't have any problems using the Speech Synth on your 6128 machine.

Q
In Q&A you recommended the Amstrad/Disk/Interface Cable FD24B & Reversiboard GD37s. I wrote to Maplins, but they said "both items had been discontinued." Can any reader sell me these items? Perhaps someone has upgraded to a bigger, although not necessarily better, machine, can sell me theirs. I enclose my address, should any readers be able to help me.

Jim Garsides, 24 Station Road, Airdrie, Scotland ML6 7BZ

A
Okay you lot, anyone feeling helpful can write to Jim at the above address.

PRINTER Q&A

Q
I have a CPC6128 and a Canon Bubble Jet BJ10-e. When I bought the printer, I was told that it was Amstrad and IBM compatible.
After experiencing problems, I contacted Canon who told me that I should have been sold a BJ10-ex. The 'x' in 'ex' means that it is Epson compatible and will thus work correctly with my CPC. Neither the retailer nor Canon will accept my old printer in exchange for the BJ10ex.
Do you know of a hack who might be able to devise a suitable program to drive my BJ10e.

John Dorza, London

A
Firstly, The BJ10e is only IBM Proprinter3 and BJ compatible. This means that you cannot use it to its full capabilities on your CPC. This shouldn't however mean that you can't use it at all. In fact, using a word processor like Protext, you should be able to print documents quite happily, although you wont be able to use any 'special effects' such as double height and underline. The best thing to do is try using the printer. Switch it 'on-line', type **PRINT#8,"testing - testing"**. The text should appear on the printer. If it does then all is well, if it doesn't then the printer may not be in IBM mode. In which case, alter the DIP switches, under the front cover, as per instructions in the manual for IBM compatibility.

Q
I have just purchased a second-hand Panasonic KXP1081 printer, but I am having trouble with printing things out. The manual instructs: LPRINT "This is a test. This is a test"
When I type this BASIC command into my CPC, all I get is a Syntax Error. Is there an equivalent command on my CPC that does the same as LPRINT, or are the printer and computer mutually exclusive?

David Cotteridge, Basingstoke

A
The trouble with printer manufacturers, is that they seem to forget that computers other than PC's exist. The actual command to send data to the printer is **PRINT#8,"This is a test. This is a test"**.

Q
I have an ancient Amstrad DMP2000 printer and, recently, it has taken to missing the middle out of all my characters. Is it trying to tell me something (like that I'm gonna have to fork out for a new printer), or is it something my software is doing? I have a CPC 6128, Protext on ROM, and ROMBO romboard, a 3.5" disk drive and ROMDOS.

Bill Watts, Grangemouth

A
By the sound of things, your printhead has probably come to the end of its life. Failing that, maybe the print head driver I.C has died. If the head has gone it won't be worth your time and money repairing it, because it alone costs £80.00. The Driver chip is a lot cheaper, and any decent electronic repair shop should be able to assist you.

SOFT-LOK
Campursoft
• £14.99 •
041-554 4735

The latest version of SOFT-LOK, the Speedlock tape-to-disk transfer program, Version 2.3, has been released by Campursoft. Hailed as the very latest generation of Speedlock tape-to-disk copiers, it took two years to write. So what's so good about it then?

The DETECT utility automatically discovers which Speedlock version a particular program contains. Also, a tape protection analyser, exclusive to Soft-Lok, takes the tedium and guesswork out of tape-to-disk work as it instinctively detects which protection is being used.

Okay, with both protection and Speedlock version now known, the appropriate transfer routine can be chosen from the menu. That done, a disk, with enough free space for the transferred game, is inserted and a filename given. The tape runs through as normal and, at the end of the load, will be transferred to disk.

Soft-Lok runs on expanded machines only, making full use of the extra RAM, in so far as it is used for manipulating the game data. This has the disadvantage of occupying more disk space, but has the advantage of transferring games that are longer than the standard 42k, which accounts for about 70% of current games.

Soft-Lok does not set up the screen inks for any transfers, because, "As the loading screen is only visible for something like 15 seconds, it seemed a bit pointless for something that is essentially cosmetic." Fair enough.

Soft-Lok is very easy to use, far easier than the only other tape-to-disk Speedlock transfer utility currently being advertised. It does the job extremely well, and has a very high success rate. Definitely recommended.

STS SOFTWARE 92 PRESENTS SOFT-LOK v2.3

SOFT-LOK V85
SOFT-LOK V86
SOFT-LOK V87
SOFT-LOK V88
SOFT-LOK V89
SOFT-LOK V90
SOFT-LOK V91
HEADER READER
VERSION DETECT
INSTRUCTIONS

THIS PACKAGE IS DESIGNED TO TRANSFER A LARGE PROPORTION OF THE D.J.L SPEEDLOCK GAMES TO DISK WITH MINIMUM FUSS. IT WILL ONLY WORK ON A 128K MACHINE WITH DISK

SoftLok uses a neat little outlined box to select menu options.



VIDEO MASTER
Campursoft
• £34.99 •
041-554 4735

The VideoMaster from Campursoft was one of issue 3's main items of news. It's been marketed as the first real alternative to the MP modulators, which were completely abysmal and no longer available. The VideoMaster will enable the CPC to display a picture on a monitor via Composite Video sockets or on TV via a Video Recorder's composite input, enabling the CPC screen to be recorded onto videotape - ideal for video titling!

Not all Video recorders or Televisions have composite input, but some modern TVs and VideoRecorders are blessed with SCART sockets (one of those long oblong ones!), for which Campursoft can supply a lead.

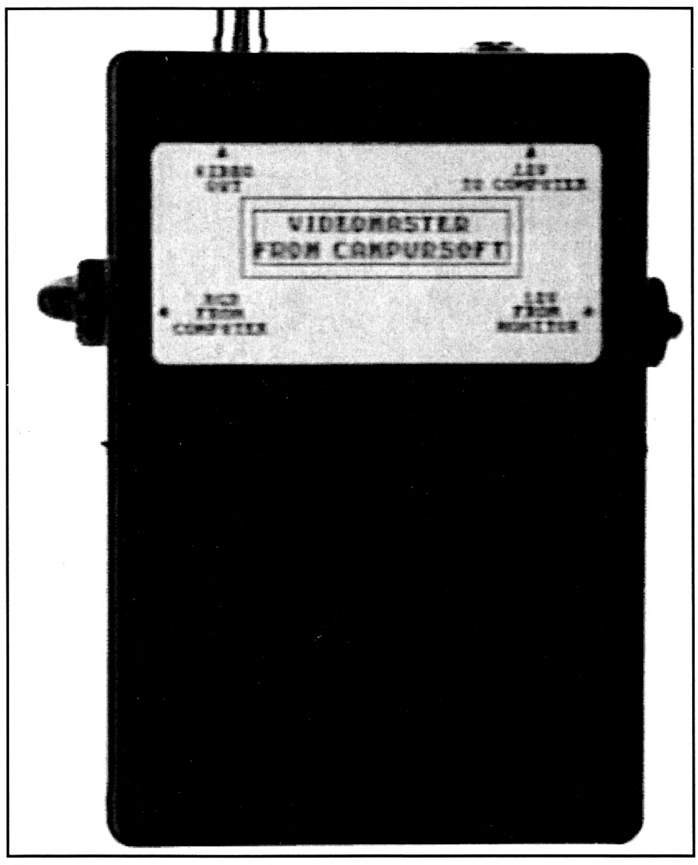
Setting up the unit couldn't be easier. One lead plugs into your CPC DIN socket, one plugs into the 12 volt line of the CPC Monitor - CPC464 owners will need a special power supply in order to use the VideoMAster, which costs an extra £9.99 from Campursoft.

The other connector plugs into a Video Recorder or Television. The AUX channel must be set for a full colour screen to be displayed. The outstanding quality of the picture must be seen to be believed! It's far, far better than anything the MP modulators could ever hope to produce - you can actually read text from a mode 2 screen!

VideoMaster's instructions are clear and precise, and, the only strange thing about it, was that the occasional screen is displayed in mono. There is no apparent explanation for this and this phenomenon has occurred with the MP modulators as well. Even a phone call to Amstrad could not illicit an answer. It's just one of those things. Aside from this the VideoMaster is an excellent piece of kit, and a worthy addition to any serious CPC owner.

RATING
95%

Monitor quality graphics from your video? Now available using Campursoft's VideoMaster.



LETTERS

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AMSTRAD HELPS OUT

While reading the September issue of CPC Attack!, I noticed that Steve Martin from London was having trouble getting the cartridges for his CPC6128+. If your readers would like to purchase any of the cartridges available at this time for the GX4000, CPC464+/6128+, they can obtain them directly from our spares by phoning 0277 209508. The list of cartridges available is: Klax, Tennis Cup 2, Tin Tin, Wild Streets, Robocop 2, Op Thunderbolt, Copter 271, Crazy Cars 2, Pro Tennis Tour, Barbarian 2, Fire and Forget, Switchblade and Batman.

I hope this will help your readers.

Andy Smallbone,
Amstrad Technical Support

Gee, thanks for the help. It's good to know that there is still some support for our readers out there.

THE PUZZLER

While reading the letters pages in a previous issue of CPC Attack!, I noticed a letter from a certain Hugh Janus from Harrow, regarding a piece of software called Amy's Puzzle game which had been released on the cover of CPC Attack! However, I am a subscriber to CPC Attack! and have never received any piece of software whatsoever on the cover of my magazine. I would be grateful if you could explain this to me as I am very displeased to find that I may not be getting my money's worth.

M.J.Pacione,
Milton Of Campsie

When we first received your letter we thought you were a wise guy (like Hugh Janus - Huge what? we ask!), but since you're from Milton Of Campsie we think not!

Amy's puzzle game was not a piece of software, but is a piece of hardware. In fact, it is the cheapest and most compact hard disk available for the CPC. Price and size have limited its storage capacity to 4 bits (half a byte - a nibble). There are 16 permutations available by placing the shiny metal bits in, or out of, the storage locations. Once the memory has been written, it will stay in that position (store) unless wiped clean (cleared - deleted - formatted).

RIVETING READ

I recently bought my first copy of CPC Attack! (September) from my local newsagent. I would like to congratulate you on a right riveting read and, with a few renovations here and there, I think that it could be the best.

To start with, how about sticking a covertape on the front of the magazine and secondly, how about paying £10 or £20 for letters of the month starting with mine!

Congratulations, I will be buying CPC Attack! every month without fail.

Rob Monk,
South Humberside

We had great debates about a covertape before and decided that it was not worth it. A covertape would drain our resources so much that it would not be practical to do so. Even by raising the coverprice to £2.50, we would still make less money than we do at present and would probably have to drop 8 pages of editorial to recover losses - leaving a measly 60 page issue. Unthinkable!

As for prize letters of £10 or £20. We will give £25 for any prize submission whether a letter, picture (art drawing) or a program listing. Not everyone will win a prize (as you have unfortunately discovered), but the best reward is seeing your work in print - isn't it?

MORE CART GAMES

First of all, I think CPC Attack! is an excellent read and great value. I particularly enjoyed The Dungeon.

There are many things I would like to ask:

1. Why don't the best games, such as Lemmings and Prince of Persia, get put onto cartridge? It could mean that the top games could have top sound and even better graphics. I'm sure that you would find a giant boost in the sale of cartridges and PLUS machines.

2. In issue 1, your review on Lemmings gave it a score of 9 for sonix. Doesn't sonix mean sound? If it does, well Lemmings on the 464 has no sound so how can you give it a score of 9?

3. I'm considering purchasing Pro Tennis Tour on cartridge. What are the differences between the cart and the tape version apart from cost?

4. In issue 2, you reviewed G-Paint. Does it require a mouse?

5. Aren't there any decent games based on the Olympics or something similar on the 464?

6. What would you say is the best footie game at the moment. Is it Kick Off 2, Microprose Soccer or some other game that I've missed?

Neil Foster
Northallerton

1. The best games didn't make the cartridge because the carts do not sell well enough. Companies who invested in producing cartridge games lost money and eventually gave up trying. Maybe the games weren't good enough, but they were not popular.
2. The review was based on a 128k disk copy. The review did not state that 64k users would not have sound - we should have made that more apparent.
3. The graphics are better on the cart version. The tape version is so good it made our Top 50 and is available for £3.99. The cartridge version will cost a lot more, so you really do want to check if the extra cost is justified. Personally, I don't think it is - no matter how good the graphics are. See 'CART GAMES HERE' - give Amstrad a call and find out!
4. G-Paint doesn't require a mouse.
5. Yes, some from Hit Squad (061-832 6633) are: Hyper Sports, Daley Thomson's Decathlon, Supertest and Olympic Challenge. From Kixx (021-625 3388) are: The Games, World Games, Winter Games, Summer Games and Super Sports. All these games are tape-based and will only cost £3.99.
6. The best footie game (see Top 50) is Kick Off 2 which has 100% arcade action, but Man United also has a management element, while 1st Division Manager (see review in this issue) has 100% strategy. Psycho Soccer (see review) is a new compilation and may satisfy your needs.

PD SUPPLIES

You reviewed some PD software in your September issue, but didn't say which libraries supplied the programs; Rambase 3, PD Planner, G-Paint and Formatter. Can you supply a contact address for these?

Gordon Dutton,
Dorstone

We don't usually specify which libraries supply individual programs unless we are supplied by them. Most libraries, listed in the contact panel each issue, can supply any piece of PD, so any of those listed should be able to help you. A problem with the libraries is, because they are part-time businesses, they do not sit behind the phone all day. You'll have to write, get information back from them (possibly by phone) then make your order.

A COVERTAPE REQUIRED

Could you please put a covertape on the front of the magazine. I think more people would buy it if you did. I also think that Pat Kelly is the funkiest person of all times!

Gregory Waddington
(age 9),
Bradford

Sorry, Greg, but no can do. If we put a covertape on we'd lose money - even if we charged £2.50. Anyway, with the state of play on the CPC scene we'd soon find that we had nothing worthwhile to justify the extra 65p that you'd have to pay. And you could just be right about your last remark, methinks!

ROMDOS TO BLAME!

As author of the StarDump 24-pin printer program I feel that I must write to thank you for such an excellent review in the September issue of your magazine.

However, your review mentions that the program will not run with ROMs enabled. I fail to understand this as it runs in all my machines with 6 ROMs on at the same time. The program does not care how many ROMs are on as it would simply claim memory from them.

I suspect the problem occurs only with ROMDOS and my 8-bit port driver. ROMDOS uses workspace other than that below HIMEM, probably using the space from &BE00 to &BE3F which is where my 8-bit drivers sit. If this is the case then my driver would overwrite some part of the disk system and cause the problem mentioned.

Finally, congratulations on the revamping of the magazine. Some of it is not to my taste, but I realise that you must appeal to the widest possible readership.

H.E. Haxwell,
Hatfield

I think that the review was fair, but welcome your comments. As you point out, ROMDOS compatibility was not checked during testing. This will cause an inconvenience for a few users who will have to switch their ROMDOS ROM off before using StarDump.



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MIND YOUR LANGUAGE
Oops, it was meant to be in this issue, but worry not. Next month, it's a definite feature.
ECTS SHOW REPORT
At the show there were over 50 CPC games pencilled in for release – read all about it.
COMPLETE CONTROL
Again, pencilled in for this issue, we just couldn't make it, but next month all is revealed.
REVIEWS
Burstin' with all the latest releases and hottest news. You'd be a fool to miss out.
PLUS all the regular features you've come to love. We have Q&A, we have news, we have Public Sector, we have Program Listings and finally we have a special announcement. Be square if you're not there!
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